Nathan I Visweshwar MD.,FRCPC

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PRESENT POSTION:	**Director, Saba Program for Bleeding Disorders Dept. of Int. Med. USF, Tampa, FL 33612**
PREVIOUS POSITION:	**Jan. 2007 - July 2013 - Hematologist/Oncologist Cancer Center of Pasco Pinellas 3000 US Hwy 19N Holiday FL34691**
QUALIFICATIONS:	**M.D Board certified in Internal Medicine Board certified in Medical Oncology**
MEDICAL LICENSURE:	**FL License # ME 97021 DEA # BV8576007**
PREVIOUS POSITION:	**July 2005 - Dec. 2006 - Co-Director of BMT Program (Asst. Prof.) at WVUniversity in dept. of Hematology/Oncology**
RESIDENCY IN INTERNAL MEDICINE:	**July 1st 2000 –Dec. 2002Mount Sinai School Program at Jersey City Medical Center, NJ.**
FELLOWSHIP:	**Jan.2003 – June 2005 Fellowship in Hematology, Oncology and Bone marrow transplantation at Seton Hall University Program at St. Joseph's Regional Medical. NJ**

COLLEGE/MEDICAL SCHOOL

Madras Medical College, Madras University, Madras, India 1968-73 MBBS
Stanley Medical College, Madras University, Madras. India 1975-75 MD

PREVIOUS EXPERIENCE

Date	Position	Hospital
Jan '95 – June '00	**Consultant Hemato-Oncologist and Physician in charge of Bone Marrow Transplantation**	**Apollo Hospitals, Madras.**
Sep '88 – Dec. '94	**Consultant Hemato-Oncologist**	**King Fahad Specialist Hospital, Buraidah, Saudi Arabia.**
Sept. '85 - Aug.'88	**Senior Registrar in Medicine and Hematology**	**Bradford Royal Infirmary, Bradford / St. James's University Hospital, Beckett Street, Leeds, U.K.**
Sep. '83 - Aug. '85	**Registrar in Hematology**	**Kingston General Hospital , Hull, UK.**
Sep. '82 - Aug '83	**Registrar in Medicine, Chest and Infectious Diseases**	**Bucknall Hospital, Stoke On Trent. U.K**
July '80- June '82	**Senior House Officer in Neurology**	**Mansfield District General Hospital, Mansfield. U.K**
May '79 - April '80	**S.H.O in Geriatic Medicine**	**Christchurch Hospital Christchurch, Dorset, U.K**
April '78 - April '79	**Honorary Assistant Physician**	**Stanley Hospital, Madras, India.**
April '75 – Mar '78	**Postgraduate training in Medicine**	**Stanley Hospital, Madras**

MEMBERSHIP IN ORGANIZATIONS

Member of ACP	**since 2001**
Member of ASH	**since 1998**

MEMBERSHIP IN PROFFESSIONAL BODIES

FRCPC	1994
FRCP	1997
FRCPath	1994
FACP	2011

History of Protocol List

1. **ILIAD**: IL-2 an Alternative dose : Treatment of Patients with Metastatic Renal Cell Carcinoma with Low Dose Proleukin
2. **BAYER100365**: A single Agent BAY 56-3722, uncontrolled phase II study in patients with advanced or metastatic colorectal cancer, who are considered resistant/refractory to Irinotecan
3. **Z-Fast:** an Open label randomized multicenter study to evaluated the use of Zoledronic acid in the prevention of Cancer Treatment related bone loss in postmenopausal women with ER+ and/or PR+ Breast Cancer receiving Letrozole as adjuvant therapy
4. **ZENECA-9331IL/0024** -A phase II, open randomized, multicentre trial to assess the efficacy and tolerability of intravenous **ZD 9331** given as monotherapy or in combination with topotecan, in patients with ovarian cancer refractory or recurrent after failing platinum and paclitaxel in combination.
5. **BCIRG 005**: A multicenter phase III randomized trial comparing combination with doxorubicin and cyclophosphamide (TAC) vs. doxorubicin and cyclophosphamide followed by docetaxel (AC-T) as adjuvant treatment of operable breast cancer HER2neu negative patients with positive axillary lymph nodes.
6. **BCIRG 006**: Multicenter phase III randomized trial comparing doxorubicin and cyclophosphamide followed by docetaxel (AC-T) with doxorubicin and cyclophosphamide followed by docetaxel and trastuzumab (AC-TH) and with docetaxel, platinum salt and trastuzumab (TCH) in the adjuvant treatment of node positive and high risk node negative patients with operable breast cancer containing the HER2neu alteration.
7. **Protocol C-2000-003**: A multicenter randomized study of Vincristine, Doxil and Dexamethasone vs. Vincristine, doxorubicin and dexamethasone in patients with multiple myeloma.
8. **Interferon** gamma 1b in combination with chemotherapy (carboplatin/paclitaxel) for first line therapy of advanced ovarian or primary peritoneal carcinoma

9. Randomized phase II trial to evaluate the effect of **gemcitabine plus R115777** vs. gemcitabine plus placebo on time to deterioration in patients with advance pancreatic cancer
10. **CTI 1060**: Phase II clinical trial of arsenic trioxide and dexamethasone for relapsed or refractory multiple myeloma
11. **OSI 2298g**: A phase III, randomized double blind multicenter trial of OSI-774 (erlotinib) plus chemotherapy (carboplatin and paclitaxel) vs. chemotherapy alone in patients with advanced stage IIIB or IV non-small cell lung cancer who have not received prior chemotherapy.
12. **POI-01-003-050**: A randomized, multicenter study of combination therapy following by subsequent single agent gemcitabine maintenance therapy or Best Supportive Care in advanced non small cell lung cancer
13. **4001.00.001**: an open label randomized controlled phase III multicentered clinical trial of PN401 with high dose 5FU vs. gemcitabine for treatment of patients with advanced pancreatic cancer.
14. **N91-00-02-040**: Clinical protocol for a randomized, double blind placebo controlled comparison of the analgesics activity of valdecoxib 40 mg BID as add on therapy to opioid medication in patients with chronic cancer pain. (closed)
15. **104864-A**: An open label multicentered randomized phase III study comparing oral topotecan/cisplatinum vs. etoposide/ cisplatinum as treatment for chemotherapy naïve patient with extensive disease small cell lung cancer.(closed)
16. **L54389-33** A multicenter, phase II evaluation of ONTAK (denileukin diftitox) in patients with previously treated low or intermediate Grade B cell Non-Hodgkin's lymphoma (closed)
17. **AMG20020122**: A randomized, open label, multicenter study of primary prophylaxis with pegfilgrastim vs. secondary prophylaxis as an adjunct to chemotherapy in Elderly subjects (65 years old) with cancer.
18. **AMG 20010144** A double blind placebo controlled multicenter randomized study evaluating the prophylactic use of pegfilgrastim on the incidence of febrile neutropenia in subjects with advanced breast cancer treated with single agent docetaxel.
19. **AMG 20020778**: randomized double blind phase II study evaluating safety of same day vs. next day administration of pegfilgrastim with docetaxel, doxorubicin and cycloophosphamide (TAC) in women with breast cancer.

20. **Lil/LUN04**: a phase II, open label, prospective randomized controlled multicenter study of navelbine in combination with gemzar vs. paraplatin in combination with Taxol in chemotherapy naïve subjects with inoperable stage IIIB or IV non-small cell lung cancer: a quality of life study
21. **CT-2103**/Carboplatin versus Pacitaxel/Carboplatin for the treatment of PS 2 patients with **chemotherapy naïve** advanced non-small Cell Lung cancer (NSCLC): A phase III study
22. **PGI-02-004-020** Final v2 A Multicenter, Retrospective Survey of the Incidence of Anemia and Outcomes of Erythropoietic Therapy in Patients Receiving Systemic Chemotherapy for Cancer (closed)
23. **CT-2103** versus Docetaxol for the **second line** treatment of Non-Small Cell Lung Cancer (NSCLC): Phase III study.
24. **PR02-27-016** An Open labeled Pilot Study to evaluate the effects of high dose Procrit in maintaining hemoglobin levels in anemic cancer patients receiving Chemotherapy on an every 3-week regimen.
25. **PR02-27-015** An Open labeled Pilot Study to evaluate the effects of high dose Procrit in maintaining hemoglobin levels in anemic cancer patients receiving Chemotherapy on an every 4-week regimen.
26. **LOR/VIR/P03/002** A Phase III, double blind, multicenter, randomized study in Chemonaive patients with locally advanced or metastatic pancreatic cancer to compare a combination therapy of Virulizin plus Gemcitabine versus placebo plus Gemcitabine; optional second line therapy may include continuation of Viruzilin or placebo, alone or in combination with 5-Fluorouracil.

27. **Helsinn Palo 004, 005, 006** -Single-dose, Multicenter, Randomized, Double-blind, Double-dummy, Parallel Group Study to Assess the Efficacy and Safety of Oral Palonosetron 0.50 mg Compared to I.V. Palonosetron 0.25 mg Administered With Dexamethasone for the Prevention of Chemotherapy-induced Nausea and Vomiting in Cancer Patients Receiving Highly Emetogenic Cisplatin-based Chemotherapy
28. **20020132** - A study to assess symptom burden in subjects with nonmyeloid malignancies receiving chemotherapy and Aranesp
29. **20000219**: A randomized open label comparative study to estimate the effect of darbepoietin alpha on hospital days, economic outcomes, and

health related quality of life in subjects with non myeloid malignancies and anemia of cancer

30. **20000220:** An open label randomized study to develop a screening tool for functional capacity in anemic subjects with non myeloid malignancies receiving chemotherapy and NESP (closed)
31. **Solvay S1753102** A double-blind, randomized, placebo-controlled, parallel-group of oral Dronabinol alone and in combination with Ondansetron versus Ondansetron alone in subjects with delayed Chemotherapy-induced nausea and vomiting.
32. **PALO-03-06 Phase 2** Open Label Piolet safety and efficacy study of concomitant Palonosetron (Aloxi) and Aprepitant (Emend) therapy for the prevention of CINV in cancer patients receiving moderately emetogenic chemotherapy
33. **PALO-04-08-**A phase 2, open-label, multicenter study to assess the saftey and efficacy of Aloxi (Palonosetron HCl) when premixed and infused with dexamethasone 8 mg in a prehydration solution for the prevention of chemotherapy-induced nausea and vomiting in patients receiving carboplatin, cyclophosphamide, doxorubicin or oxaliplatin
34. **NAFTA** Phase III Study of Tamoxifene versus Toremifine as adjunct therapy for women with Breast Cancer.
35. **POI-02817** A multicenter, Open-label Study of Nipent, Cytoxan, and Rituxan in the treatment of Previously Untreated and Treated, Stage III or IV, Low-Grade B-Cell Non-Hodgkin's Lymphoma
36. **POI-02818** A Multicenter, open-Label Study of Nipent, Cytoxan, and Rituxan in Patients with Previously Untreated Chronic Lymphocytic Leukemia
37. **AMG20030204** A Phase 2, Randomized, Double-Blind, Placebo-Controlled Study of Darbepoetin Alfa Administered Once Every 4 Weeks in the Treatment of Subjects With Anemia of Cancer Patients not currently taken Chemotherapy.
38. **AMG20030206** SYNCHRONICITY: A Study to Evaluate the Effectiveness of Aranesp® at 300 Mcg Q3W on Clinical Outcomes in Cancer Patients With Anemia Due to Chemotherapy
39. **Strakan Patch Study 392MD/15/C** A randomized, active control, double-blinded, double-dummy, parallel-group, multi-national study to assess the efficacy, tolerability and safety of the granisetron transdermal delivery system in chemotherapy –induced nausea and vomiting or highly emetogenic multi-day chemotherapy

40. **Palo-03-13 ALOXI** - A Multi-Center, Open-Label Trial to Evaluate the Efficacy and Tolerability of Aprepitant and Palonosetron for the Prevention of Chemotherapy-Induced Nausea and Vomiting
41. **Palo-03-14 ALOXI** - A Multi-Center, Open-Label Trial to Evaluate the Efficacy and Tolerability of Aprepitant and Palonosetron for the Prevention of Chemotherapy-Induced Nausea and Vomiting
42. **DACO-020** A Phase 2 Study of decitabine Administered Daily for 5 days Every 4 Weeks to Adults with Advanced-Stage Myelodysplastic Syndromes.
43. **Z-Fast CZOL446E US32** An open-Label, Randomized, Multicenter Study to Evaluate the use of Zoledronic Acid in the Prevention of Cancer Treatment-Related Bone Loss in Postmenopausal Women with ER+ and/orPR+ Breast Cancer receiving Letrozole as Adjuvant Therapy.
44. **Z-Next Registry Protocol CZOL446EUS99** A dual-Cohort, prospective, Observational Study of Unresectable Stage IIIB/IV Non-Small Cell Lung Cancer Patients With and Without Bone Metastasis

45. **Abbott M05-782** A Phase ½ Study evaluating the Safety and Efficacy of ABT 751 in Combination with Docetaxel vs. Docetaxel Alone in Subjects with Advanced or Metastatic NSCLC
46. **DOXILOVC2007** A single arm Study of Carboplatin and DOXIL plus Bevacizumab in Subjects with Platinum Sensitive Recurrent Ovarian Cancers
47. **Amgen 20050232** A Randomized Double- Blind, Placebo-Controlled Study Evaluating the Efficacy and Safety of Romiplostim Treatment of Subjects with Low or Intermediate Risk Myleodysplastic Syndrome Receiving Hypomethylating Agents
48. **Amgen 20060102** A Randomized, Double Blind, Placebo Controlled Study Evaluating the Efficacy and Safety of AMG 531 Treatment of Subjects With Low or Intermediate-1 Risk Myelodysplastic Syndrome (MDS) Receiving Lenalidomide
49. **C2006-01** Phase 3 Randomize Clinical Trial of the Efficacy and Safety of APF530 compared to ALOXI for Prevention of Acute and delayed CINV following Moderate or highly emetogenic Chemotherapy

50. **Amgen 20060103** Once Per Cycle Treatment of Anemia With Darbepoetin Alfa With Iron in Subjects With Non Myeloid Malignancies
51. **3160A4-3000-WW** – A Phase 3 Randomized, Open-label Study of Bosutinib versus Imatinib in Subjects with Newly Diagnosed Chronic Philidelphia Chromosome Positive Chronic Myelogenous Leukemia
52. **Luitpold 1VIT08019** A Multi-center, Randomized, Controlled Study to Investigate the safety and Tolerability of Interavenous Ferric Carboxymaltose (FCM) vs Standard Medical Care in Treating Iron Deficiency Anemia
53. **Luitpold 1VIT08020** A Multi-center, Randomized, Controlled Study to Investigate the safety and Tolerability of Interavenous Ferric Carboxymaltose (FCM) vs Iron Dextran in Treating Iron Deficiency Anemia
54. **Luitpold 1VIT08021** A Multi-center, Randomized, Controlled Study to Investigate the safety and Tolerability of a Single Dose of Interavenous Ferric Carboxymaltose (FCM) vs Standard Medical Care in Treating Iron Deficiency Anemia in Subjects Who Are Not Dialysis Dependent
55. **EISAI E7373-A001-401** A Randomized , Open-label, Parallel-Group Study Comparing the Efficacy and Safety of Dacogen vs Vidaza for injection in subjects with Int-1 and High risk MDS
56. **LF-0207 – FORTIS-M** A Phase 3, Randomized, Double-blind, Placebo-controlled study of oral talatoferrin in addition to best supportive care in patients with non-small cell lung cancer who have failed two or more prior treatment regimens
57. **EPO-ANE -3018** A Randomized, Double-blind, Placebo -Controlled, Multicenter Study Evaluating Epoetin Alfa Initiated at 40,000 IU Every Week or 80,000 IU Every Week vs Placebo in Subjects with IPSS Low or Intermidiate-1 risk MDS at Risk for Transfusion
58. **EPO-ANE- 3010** A Randomized, Open-label, Multicenter, Phase 3 Study of Epoetin Alfa plus Standard Supportive Care versus Standard Supportive Care in Anemic Patients with Metastatic Breast Cancer Receiving Standard Chemotherapy
59. **AMG 20060198** A Randomized, Double-blind, Placebo -Controlled Study Evaluating the Efficacy and Safety of Romiplostim Treatment of Thrombocytopenia in Subjects with Low or Int-1 MDS
60. **EISAI E7389-G000-301** A Phase 3 Open-label, Randomized Two-Parallel-Arm Multicenter Study of E7389 vs Capecitabine in Patients with Locally Advanced or Metastatic Breast Cancer Previously Treated with Anthracyclines and Taxanes and Refractory to the Most Recent Therapy

61. **EC-FV-04** A Randomized Trial Comparing EC145 and Pegylated Liposomal Doxorubicin in Combination vs. Pegylated Liposomal Doxorubicin alone in Subjects with Platinum resistant Ovarian Cancer
62. **PGT 307** Paciltaxel poliglumex (CT-2103)/Carboplatin vs. Paciltaxel/Carboplatin for the treatment of Chemotherapy-Naïve Advanced NSCLC in women with Estradiol < 30pg/ml
63. **MM-121-02-02-03** A randomized Double-Blind Phase 2 trial of Exemestane +/- MM121 in Postmenopausal Women with locally advanced or Metastatic Estrogen receptor positive and/or Progesterone Receptor positive, HER 2 negative Breast Cancer
64. **PALO 08-09** Multicenter Phase IV, Open Label to assess the efficacy and safety of single dose Palonosetron in the prevention of CINV in Patients with NHL undergoing repeated cycles of Chemotherapy
65. **AMG20070782** A randomized, Double blind Placebo controlled study to evaluate long term safety and efficacy of Aranesp administered at 500mcg every 3 weeks in anemic patients with Advanced stage NSCLS receiving multiple Chemotherapy
66. **KLT-PANC-001** A randomized dose Escalation, Safety and Exploratory Efficacy Study of Kanglaite Injection Plus Gemzar vs Gemzar alone in Advanced Pancreatic Cancer
67. **AMAG-FER-IDA-301** Phase 3 Randomize Double blind, Placebo Controlled trial of Ferumoxytol for IDA
68. **AMAG-FER-IDA-303** Phase 3 Open label Extension Trial of the Safety and Efficacy of Ferumoxytol for IDA
69. **LUX-BI 1200.75** An Open -label, Randomized Phase 3 trial of BIBW2992 and Vinorelbine vs Trastuzumab and Vinorelbine in patients with Metastatic HER2 -Overexpressing Breast Cancer failing one prior Trastuzumab treatment
70. **GWCA0962** A Randomized Double- Blind, Placebo-Controlled, Parallel group study of Sativex oromucosal spray (Sativex nabiximols) as Adjunctive Therapy in Relieving Uncontrolled Persistant Chronic Pain in Patients with Advance Cancer, who Experience Inadequate analgesia during Optimized chronic Opioid Therapy
71. **GWCA0999** A Multi-center, noncomparative, Open-label extension study to assess the long term Safety of Sativex oromucosal spray (Sativex nabiximols) as Adjunctive Therapy in Relieving Uncontrolled Persistant Chronic Pain in Patients with Advance Cancer
72. **PX-866-003** - A Phase ½ Study of PX866 and Cetuximab
73. **PX-866-002** - A Phase ½ Study of PX866 and Docetaxol in patients with solid tumors

PAPERS

Matched and mismatched unrelated cord blood (UCB) stem cell transplant (SCT) in adults.- Preliminary results of an ongoing prospective trial- Chen W, Stives S, Visweshwar N, Diaz B, Yanbeiy N, Ojha R, Saad M, Parumag N, Farley T, Nath R, St. Joseph's Regional Medical Center , Paterson, NJ- Abstract presented in tandem BMT meet 2003

UCB has been commonly used as a source of allogenic stem cells in infants and children who lack suitable HLA matched sibling donor. However the success of UCB-SCT in adults is limited by lower number of stem cells in cord blood which results in delayed and overall incidence of engraftment. Eight patients have been treated at SJRMC since August 2002. Diagnosis at transplant include MDS/AML (2), ALL (2), Burkitts Lymphoma (1), HD (1), NHL (2). 6/8 patients had active disease, one had Ph_1+ve ALL in second remission,. Two had received prior radiation to the lungs/mediastinum. The median age was 52 years (29-60). The median weight was 86Kg. (66-104). Seven out of 8 patients were CMV positive. All patients were uniformly conditioned with Thiotepa (10mg.Kg on day-7), Busulphan(3.2mg/Kg on days – 6t0-4), Cyclophosphamide (60mg/Kg on day-3 & day-2), Anti –Thymocyte globulin.(20mg/Kg 0n days -4 and -2) and Solumedrol (500 mg0n days -4 and-2). GVHD prophylaxis consisted of Mycophenolate Mofetil (days 1 -56) and Tacrolimus (fromday-1). HLA match was 6/6 in one case and 4/6 in seven cases based on intermediate resolution matching on class I locus and high resolution on class II locus. The median total

nucleated cell dose (TNC) based on pre cryopreserved sample was 2.57 (1.88-3.96) X 10^7/Kg. Patients were infused with median of 1.99X10^7/Kg. All 8 patients engrafted. The median time to achieve ANC 200/cmm.,500/cmm and 1000/cmm. were day 22 (17-30), day24 (20-35) and day 26(23-38) respectively. The median time to platelet count 20X109/L for 6 patients was 64(47-156) and 50X109/L for 3 patients was 170(56-172). All patients achieved 100% donor chimerism on day30. 7/8 had 100% donor chimerism on day100. One patient had donor chimerism on day 100 and was found to have a leukemic relapse soon after. Five patients developed BK virus induced hemorrhagic cystitis at the median time of day 48(35-60). Two patients required surgical intervention, one of which is currently asymptomatic. Our preliminary results suggest that UCB-SCT is an appropriate alternative for adult patients with high risk hematological malignancies who lack a suitable donor.

Late onset hemorrhagic cystitis following stem cell transplant: Risk factors and outcomes. Jambay N. Amin A, Visweshwar N, Ojha R, Mohsen R, Randhawa D, Stives S, Manna P, Benn H, and Nath R. Bone marrow transplant center , St. Joseph's Regional transplant Center Paterson NJ. Virocor, Lee's Summit MO, USA- Abstract presented in ASCO 2005

Hemorrhagic cystitis following stem cell transplantation is classified into two types, based on causes and time of appearance. Early onset HC occurs within 48 hours from the preparative regimen and has been reported to be associated with viral infections. We retrospectively analyzed clinical records of 41 patients who underwent SCT between June 2002-June 2004. Median age 54yrs (20-74) M/F: 2:1. AML/MDS-15, ALL-4, CML-2, NHL/HD -14, MM -4 and solid tumor 1. Twenty-two patients received allogenic stem cell transplants (matched sibling 10, matched unrelated 2, cord blood 10, and ABMT -19. Conditioning regimen included BEAM – 8, BU/CY-Thiotepa 17, TBI/Cyclo-4, Melphalan /Fludara-12. 16 patients were considered to have poor risk disease (those beyond first complete remission in relapse) and 2 patients had good risk disease. HC was defined as RBCs in the urine without any trauma and persistence for >7 days. All patients who developed HC were tested for BK virus, CMV and adenovirus in the urine and blood which were measured by real time assay. HC was detected in 11 patients (26.8%), 8 of which had BK viruria: median of 25 days (11-60) days. None of these patients were detected to have CMV or adenovirus. No patient had received cord blood developed HC, while only two patients who did not have cord blood transplant has HC (p.0001). Two patients who had BU/CY / Thiotepa developed HC compared to one patient who did not have the same regimen developed HC(p.001) . Eight patients who developed HC died compared to only six patients who did not develop HC and died (p.003). Among the 28 males, 10 patients developed HC compared to one female patient who developed HC (p.126). **CONCLUSION**: Three predisposing factors were identified for the development of HC. Cord blood transplant (p.002). Busulphan (p.002) and poor risk group (p.001). The mortality rate was significantly higher among patients who developed HC

Relationship of BK viral load in blood and urine with the severity of hemorrhagic cystitis (HC) after hematopoietic stem cell transplantation (HSCT) Jambay N, De Bari V, Manna P, Visweshwar N, Chang D, Lange M, Sterrett J, and Nath R. St. Joseph's Regional Transplant center, Paterson, NJ and Virocor Laboratories, Lee Summit, MO, USA-16th Annual Research Colloquium of Seton Hall Univ. 2005

Hemorrhagic cystitis is a frequent and serious complication after HSCT. An association between BK virus in the blood and urine and late onset hemorrhagic cystitis has been described in the literature. The role of BK virus in the pathogenesis of HC is currently unknown but it has the strong temporal relationship between the onset of viruria and HC. We retrospectively analyzed the records of eight patients who had BK virus associated HC after HSCT seen in our institution from June 2002-2004. All patients were male with a median age of 51(24-61) years. The severity of HC was graded according to the number of RBCs in urine. Grade 1(RBCs <50), grade 2 (50-100), Grade 3 (>100) and grade 4
(Macroscopic).Grade 1 and 2 were subdivided to 1a/2a (without symptoms) and 1b./2b (with symptoms). BK viral load in blood and urine specimens was measured by real time PCR assay done by Virocor laboratory. The Shaporo 0-Wilks test was used to determine goodness to fit for normal distribution. The data were found to be non-normally distributed and so correlations were assessed using sperman's rho method. **Result**:There was significant correlation of BK viral load in the urine with the number of RBCs in urine (p.00005) with 95% confidence interval. There was as also a significant correlation if BK viral load in the blood than with BK viral load in urine (p.0008). **Conclusion**: This study suggests a strong correlation

between BK viruria and the severity of HC and a strong correlation between BK viruria and the severity of HC and a strong correlation between BK viruria and BK viremia. More studies are needed to find the implications for early diagnoses and treatment of BK viral infectious limits.

Unusual case of chronic renal failure secondary to PNH – Visweshwar Nathan, MD.,Pillai Sujesh, Razzak Abdul MD, Saini Harjinder MD and Uhm Peter MD- 16th Annual Research Colloquium of Seton Hall Univ. 2005

Paroxysmal Nocturnal Hemoglobinuria (PNH) is an acquired stem cell disorder characterized by intravascular hemolysis, venous thrombosis and marrow failure state. This is due to defective X-linked gene – PIG-Class A, leading to lack of GPI anchored complement regulatory proteins CD55 and CD59 leading to chronic hemolysis, chronic hemoglobinuria with tubular dysfunction. We are reporting a dialysis dependant patient with chronic renal failure who was eventually diagnosed to have PNH. **Case report:** This 42 year old Hispanic male presented with recent onset of colicky abdominal pain that was associated with nausea and vomiting. He also complained of fever with chills with yellowish discoloration of sclera. Past medical history was unremarkable except that 10 years ago he was told that he had a kidney problem. Clinical exam was unremarkable. Investigations revealed Hb. of 8.6gm%, Hct.24.8,WBC 4.1,Plt.142,000 MCV85, PT13.5, PTT 32.0,BUN 70,Cr.14.5,Phos.9.6, CPK 1145, total bilirubin. 4.1 DB 1.4,albumin 3.5g, SGOT 433,SGPT40,ALP40,Amylase 351,Lipase78,and Retic.Ct. 6.4% U/S Abd:Biliary sludge and Rt. Kidney 11cm and Lt. kidney 13.5am. with hyper echoic pattern. Pt. is HIV-ve, HBsAg+ve. UA-turbid urine with ketones >80, Se.Ferritin 930, B12 440,LDH 3171, RF 640IU, ANA-ve, C-ANCA –ve, C3 91(92-180), and C412(9-34). B/M Bx.-Normal. Renal Bx.-showed deposition of iron in sub epithelial and mesangial cells. CD55 and CD59 assay in peripheral blood were markedly decreased. A diagnosis of PNH with acute on chronic renal failure was made and he patient was commenced on hemodialysis. **Summary:** We are reporting a case of acute on chronic renal failure secondary to iron deposition in the kidneys from long standing hemosiderinuria from PNH. In the last 10 years of Medline search we could not find a reported case of renal failure as presenting feature of PNH. MRI of the kidneys is the investigation of choice to diagnose renal involvement from PNH. PNH cases reported in Medline with renal involvement were benign and completely reversible. There were mainly changes of tubular dysfunction. Eculizuamb, a humanized monoclonal antibody that inhibits terminal complement by binding to C5 and Aptamers, which bind to C8 and C9, have been found to be useful in patients with hemolysis and methemoglobinuria in PNH.

Double Bence Jones Proteinuria

A. Anis MD, A. Sehbai MD, Ericson Solveig MD, Nathan Visweshwar MD.
MBRCC, West Virginia University Hospitals, Morgantown, WV- ACP meet Pittsburgh 2005

A 66-year-old Caucasian male was recently referred to us for evaluation of a pathological fracture of the distal femur. Patient had pain in the right leg for 3 weeks and sustained a fall after which radiographic studies showed the fracture. Orthopedic surgery saw patient and a trochanteric nail was placed in the distal femur. The distal right femoral IM reamings were sent for pathology and it was reported as plasmacytoma showing kappa light chain restricted plasma cell proliferation. The plasma cells were shown to be monoclonal for kappa and negative for lambda utilizing the FISH technique. They were positive for CD-138. Pancytokeratin and CD-20 were negative. CBC showed a WBC count of 4700, hemoglobin 11.1, hematocrit 32.7, MCV 91, platelet count of 603,000. Differential showed PMNs 68%, lymphocytes 22%, eosinophils 0%, monocytes 9%, basophils 1% and an ANC of 3150. Sodium 133, potassium 4.4, chloride 104, BUN 13, and creatinine was 1.2. Anion gap was 3. Corrected calcium was 10.32. Phosphorus 3.9, albumin 2.6, total bilirubin 0.7, AST 32, ALT 31, alkaline phosphatase was 110, LDH was 170. TSH was 1.27. CEA level was less than 0.5, and a PSA level was 3.6.

A random urine electrophoresis showed monodispersed band in the beta/gamma region with an increased quantity of low molecular weight serum proteins in the specimen. The random urine immunofixation studies showed a monoclonal *IgG lambda* plus free monoclonal lambda light chains. It also showed a monoclonal *IgG kappa* plus free monoclonal kappa light chains detected. This was confirmed by quantitation and tissue staining by pathologist. The serum electrophoresis showed a zone of restriction in the beta/gamma region. The immunofixation electrophoresis showed monoclonal IgG lambda as well as monoclonal IgG kappa. The serum IgG level was 4880, and a serum kappa level was 5710 mg. Bone

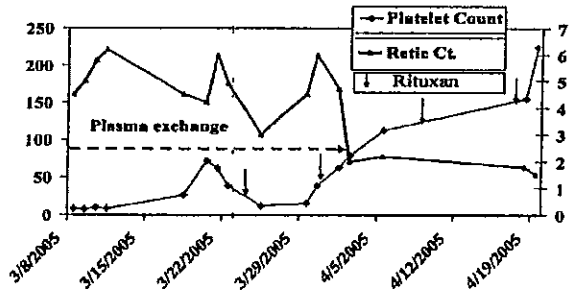
marrow biopsy showed myeloma cells occupying 25 % of the hypercellular marrow. Skeletal survey did not show any other areas of bony lytic lesions except the distal femur. The patient was enrolled in a clinical trial available at our hospital.

Review of current literature shows extremely few cases of myeloma patients having double Bence Jones proteinuria. This was documented in our patient with urine immunofixation studies. We will present the clinical case, radiographic, pathological and immunological studies and review the current literature on this distinct entity.

Rituxan for treatment of HIV induced TTP

Annette C. Fontaine MD, Ridula Vinjamuri MD, Aasim Sehbai MD, Nathan Visweshwar MD
Mary Babb Randolph Cancer Center (MBRCC), Morgantown, WV- ACP meet Pittsburgh 2005

Thrombotic thrombocytopenic purpura (TTP) is a rare hematological disorder characterized by thrombocytopenia, red cell fragmentation, fever, renal failure, hemolytic anemia, increased LDH and mental obtundation. The primary pathological basis for this disorder is endothelial damage from platelet aggregation and tissue hypoxia. This disorder has been recently found to be secondary to lack of metalloprotease, ADAMTS13 - an enzyme lacking either from lack of production, as in inherited form or acquired form of the disease, from a circulating autoantibody. The underlying causes of TTP are varied. HIV infection is one of the causes of acquired TTP. TTP occurs in HIV, early in the course of the disease or later when the patient has developed other co-morbid conditions. TTP in HIV infection is known to have recurrent and relapsing course. We are reporting a patient with HIV induced TTP, treated successfully with Rituxan, a chimeric CD20 antibody. In last ten years medline search, there is no reported case of TTP induced by HIV successfully treated with Rituxan



Cerebral Venous Sinus Thrombosis (CVST) and Hereditary Spherocytosis (HS)

Saad Ayman MD, Aasim Sehbai MD, Jame Abraham MD, Nathan Visweshwar MD.
Mary Babb Randolph Cancer Center (MBRCC), Morgantown, WV-ACP meet Pittsburgh 2005

We report a case of a 21-year-old Caucasian female with past medical history of Hereditary Spherocytosis and splenectomy done at age 6, now presented with c/o severe headache, photophobia, neck stiffness and flu-like symptoms. An infectious workup was done and ruled out any systemic infection or meningitis. A CT scan of the head was essentially negative however, the MRI of the brain showed thrombosis of right transverse sinus, right sigmoid sinus, sagittal sinus, straight sinus, internal jugular vein on the right side and portions of vein of Gallen. There was no infarction or hemorrhage noted. MRV (Magnetic Resonance Venography) confirmed these findings.

Patient was started on anticoagulation with heparin and subsequently switched to Coumadin. Prior to her discharge, MRI brain showed an interval recanalization of some of the cerebral veins and she improved clinically. She was also evaluated by neuro-ophthalmology and had bilateral papilledema at the time of presentation and was started on Diamox to lower the intraocular pressure. Patient's WBC was 6,000, hemoglobin was 14.5, platelet count of 646 and MCV was 90. Peripheral smear showed some acanthocytes, target cells and Howell-jolly bodies but no spherocytes.

Patient also had a hypercoagulable workup including Factor V Leiden mutation and Prothrombin II Gene mutation, which was negative. Serum Homocysteine level was 14 i.e. upper limit of normal. Other hypercoagulable workup was negative. Her risk factors for developing this acute event included the use of oral contraceptives for last 2 months, a history of having a sinus and upper respiratory tract infection few weeks ago and history of sustaining an ankle sprain few months ago for which she was placed on an aircast and crutches. She also had an elevated platelet count. Pt did not smoke or consume alcohol. The plan is to continue the coumadin for 6 months and repeat the hypercoagulable studies after patient is off coumadin. She is also given folate supplementation.
Oral contraceptives are identified as a strong risk factor for cerebral venous sinus thrombosis (CVST) especially in presence of a prothrombotic state. Thrombosis have been described in medical literature in association with hyperhomocystinemia, hereditary stomatocytosis, hemoglobin H disease, pyruvate kinase deficiency, hemoglobin E/beta thalassemia, post splenectomy states, Evan's syndrome, paroxysmal nocturnal hemoglobinuria and other hereditary hemolytic anemias. There is only 1 case described in medical literature of a patient with Hereditary Spherocytosis who developed bilateral pulmonary emboli and ours would be the second one. We will review the current literature and pathophysiology.

RESPONSE TO STEROID THERAPY OF FACTOR VIII SPECIFIC INHIBITOR IN HEPATITIS-C VIRUS INFECTION. N. Visweshwar[1]; R. Sudheendra[1]; A. Devarajan[1]; T. Vallur[1]. [1]*Jersey City Medical Center, Jersey City, NJ.* **(Tracking ID # 74204)** SGIM.2003

LEARNING OBJECTIVES: In Hepatitis C patients, with acquired Factor VIII inhibitor, there is an excellent response to steroids.inspite of Hepatitis C infection CASE INFORMATION:This is a 48 yr old Indian male was admitted with a h/o hematemesis and frank rectal bleed. He had h/o acquired Hepatitis-C and intravenous drug abuse. He had had prior admissions for ascites and ankle edema from decompensated liver disease. His blood count 2 wks prior to this admission showed Hb 8.9 gm/dl, WBC 4600/cmm and platelet count 119,000/dl. Coagulation screen showed PT 12.5 secs (12-14secs), PTT 28.5secs (25-40secs), and his bio-chemical screen was within normal limits. The LFT's were within normal limits. During the present admission, the patient was found to have pallor, edema of ankles and abdominal distension. Ascites and splenomegaly were noted. There was no evidence of jaundice or flapping tremor of the out-stretched hands. He received 2 units of compatible blood for a Hb of 6.5gm. Within the next 24 hrs, he developed deep jaundice with total biliribin 9.5mg/dl (direct 3.5mg/dl and indirect 6mg/dl). Direct Coombs test was positive. Repeat antibody screening showed anti-Kell antibody. Coagulation screen showed PT 12.5secs, PTT 85secs and fibrinogen 220mg/dl. Factor VIII level was 3%. Mixing studies of the patients' plasma and normal plasma showed (50:50) immediate correction of PTT to 30secs, but PTT done after incubation of one hour was 66secs confirming a delayed inhibitor. At this time he had a positive hemoccult and bloody gastric aspirate. The tests for ANA and dsDNA were negative. He was prescribed oral Prednisone 60mg /day and Prevacid 30mg/day and inj. Procrit 40,000 units SC/week. Over the next few days he improved with no fresh bleeding and was discharged. Three weeks later, the patient was reviewed in the clinic, when his Hb was found to be 9.7gm% and his PTT 30secs. The dose of Prednisone was decreased to 30mg/day. On follow up patient continues to be free of inhibitor inspite of withdrawing the steroids.

RIGHT VENTRICULAR INFARCTION PRECIPITATING A BIDIRECTIONAL SHUNT IN A PATIENT WITH INCIDENTAL ASD. N.I. Visweshwar[1]; R. Sudheendra[1]; A. Devarajan[1]; A. Ameen[1]; T. Vallur[1]. [1]*Jersey City Medical Center, Jersey City, NJ.* **(Tracking ID # 74202)** SGIM 2003

LEARNING OBJECTIVES: 1.RV infarction resulting in raised RA pressure can precipitate a bi-directional shunt in an ASD. 2.Reversal is not a contraindication for surgical correction. This is a 59 yr old White male presented with a h/o two hours of crushing retrosternal chest-pain. The pain was 9/10 in intensity; occurred while at rest, non-radiating and was associated with dyspnea and diaphoresis. Pt. has a 90-pack year h/o smoking and a family h/o CAD. He denied HTN, DM, hypercholesterolemia, ETOH abuse or illicit drug use. Four weeks prior to this admission, he was worked up at another hospital for exertional chest pain. He had a reportedly negative stress test, normal 2-D ECHO and EGD. O/E, vitals were BP 120/80, HR 85/m, RR 14/m, T-99o F, SaO2 - 90%. Pt had raised JVD, normal carotids, PMI not felt, S1 normal intensity, S2 widely split and fixed, 2/6 ESM heard on Left sternal border. RS-normal. Extremities-no edema, 2+ pulses and equal on both sides. EKG-NSR,ST elevation in inferior leads and in V4R. CXR-Hilar prominence with pulmonary plethora. CK-1515/172, Troponin 299. WBC 7.7 Hct 40 Plt 211. ECHO-mild LV systolic dysfunction; RV dilated;ASD & mild pulmonary HTN. Patient received thrombolytic therapy; heparin I.V, ASA, B-blocker and ACE-I. Pt. improved clinically. He had a cardiac-cath, which showed 90% diffuse RCA stenosis with mild LV systolic dysfunction; A 3cm ASD with bi-directional shunt was noted during cathetrization. Pt. had CABG and closure of ASD.

ACUTE MYOPERICARDITIS PRESENTING AS MI. N. Visweshwar[1]; R. Sudheendra[1]; A. Devarajan[1]; T. Vallur[1]. [1]*Jersey City Medical Center, Jersey City, NJ.* **(Tracking ID # 74205)** SGIM -2003

This is a case of forty year old caucasian male who presented with history of crushing central chest pain 9/10 in intensity at the retrosternal region radiating to the neck. This was associated with profuse sweating for about three hours prior to his arrival in ER. Patient had taken aspirin at home. In ER, patient was given two tablets of nitroglycerin with no response. A 12 lead EKG showed ST segment elevation in the anterior wall leads and PR segment depression. The cardiac injury profile showed CPK 1635, CKMB 171 and troponin 192. As the history and investigations were consistent with acute myocardial infarction, patient was started on

thrombolytic therapy with TNK ,40mg IV and heparin infusion. Repeat EKG done at 10 minute and 20 minute interval showed no change and patient continued to have the same intensity of chest pain. Patient needed two doses of morphine sulphate 4 mg IV to relieve his pain. As the patient did not respond to thrombolytic therapy, he had an echocardiogram that showed no evidence of segmental hypokinesia. The left ventricular ejection fraction was 45%. A diagnosis of acute myopericarditis was made, anticoagulant therapy was discontinued and patient was treated conservatively in intensive care unit. Cardiac catheterization was done on the second day of admission. During catheterization the coronary vasculature was found to be normal. Patient recovered with ST segment elevation reverting back to isoelectric line within the next three days. LEARNING OBJECTIVES: 1.A bedside Echo would delineate acute pericarditis from an acute MI in case of suspision which also averts the disastorous complications of thrombolytic therapy 2.Failure of ST segment to revert back to isoelectric line following thrombolytic therapy should alert the physician to consider a bedside echocardiography to differentiate acute myocarditis from acute myocardial infarction.

The CD4 and absolute neutrophil count to measure adherence to treatment in patients with AIDS – N. Visweshwar MD, R. Sudheendra MD, K. Subramaniam, C. Rathnakumar and V. Thrumavalavan MD Jersey City Medical Center, Jersey City, NJ.
Abstract #2, Mount Sinai Medical Journal 2003

Treatment of HIV infection with highly active retroviral agents has decreased overall morbidity and mortality. Adherence to treatment is needed to achieve its beneficial effects. Various measures including pill count , interview with composite adherence score, HIV viral load have all been used to evaluate adherence to HAART. In this etrospective study of 363 patients attending the HIV clinic of an inner city hospital we meadured the ANC and CD4 counts before and after initiation of HAART . Our data showed that the ANC and CD4 count before was 2.5/cmm. and 306/cmm and after initiation of HAART were 2.4/cmm. and 323/cmm. respectively. Our data supports the view that current HAART is fraught with high degree of non compliance.

Kikuchi--Fujimoto Disease in HIV – Presenting as F.U.O Visweshwar I MD, Rojas R MD, Sudheendra R MD and Tacsa L MD ***Jersey City Medical Center, Jersey City, NJ.- case report- Oct. 2003:Mount Sinai Med. Journal***

KIKUCHI-FUJIMOTO disease is a self-limiting illness characterized by pyrexia, neutropenia and lymphadenopathy. Originally described in young women of oriental descent, it was first reported in Japan in 1972 by M. Kikuchi and independently by Y. Fujimoto. Kikuchi's disease is a differential diagnosis for patients presenting with high-grade pyrexia and lymphadenopathy with negative microbiological and immunological investigations. Excisional biopsy of the affected lymphnode not only has the diagnostic value but it also has a therapeutic benefit with defervescence of fever over the next few days after the excision of the affected lymph node. Most of these patients resume their routine activities by 3 months. Cervical lymphnodes are affected in more than 75% of cases. Pyrexia with no focal signs or symptoms apart from lymphadenopathy is the hallmark of this disease. There may be associated splenomegaly or hepatomegaly. Other clinical features are arthromyalgia, cutaneous rash, sweating and in about 50% of cases profound neutropenia. Our case presented shows that lymphadenopathy in patients with HIV infection can be due to variety of reasons including unrelated conditions like KIKUCHI-FUJIMOTO disease and one should have an open mind in approach.

REVERSIBLE SEVERE BRADYCARDIA AND ASYSTOLE INDUCED BY TRANSIENT HYPOXIA I. Visweshwar and A. Ameen Jersey City Medical Center, Jersey City, NJ 07304.

Learning Objectives: Recognize that transient hypoxia can result in severe bradycardia and asystole .Distinguish between vagally -mediated and anoxia -induced bradycardia. Need for adequate oxygenation prior to suctioning patients on ventilator.

A 46 year - old male was admitted to the Intensive care unit after having jumped from a height of twenty feet in an attempted suicide-bid. He had sustained fractures of the pelvis and shaft of the humerus. He developed ARDS on the third day and needed ventilatory

support with $FiO_2 > 0.7$. He also had a Greenfield filter inserted on day one. The patient was noted to develop profound bradycardia (30- 40 bpm) during each attempt at suctioning. One such episode resulted in a sinus pause of three seconds. Concomitantly, the patient developed significant hypotension. Initially, this was thought to be due to vagal stimulation, secondary to suctioning. However, later it was noted that the patient repeatedly became bradycardic and hypotensive immediately after disconnecting from the ventilator and prior to suctioning. The bradycardia was reversed with i.v. atropine. Subsequently the patient was hyperoxygenated prior to any attempt to disconnect from the ventilator. This prevented the development of bradycardia and hypotension in the patient. We conclude that the cause for the bradycardia in this patient is secondary to transient hypoxia rather than suctioning –induced reflex bradycardia.

Adult Stills disease presenting as FUO – Visweshwar I, Patel N and Vaallur T- Jersey city Med. Ctr. - Jersey City NJ Abstract presented at SGIM meet at Atlanta 2002

Learning Objectives: [1] Recognize Adult Still's Disease (ASD) in a case of fever with evanescent skin rash. [2] high serum Ferritin levels- a tool for diagnosis of ASD. Case: A 34 yr old Hispanic male with no significant past medical history, presented with fever, arthralgias and evanescent skin rash of 2 wks duration. The fever ranged from 101°-105° F and was associated with chills. The rash was on the face, trunk and extremities. It was nonpruritic, salmon-colored, maculopapular and varied from 2-5 cm. It appeared mainly during febrile episodes. On examination, apart from the rash, the spleen was palpable 1 inch below the costal margin. Examination of other systems was unremarkable. Lab investigations revealed Hb 12.2 gm/dl, WBC 25,000/µL (82% PMN's), plat. count 312,000/ µL. The BUN, Creatinine and electrolytes were normal. LFT's: AST 68, ALT 111, Bilirubin 0.9mg%. Serum Ferritin – 7760 ng/ ml. Repeated blood cultures were negative for any growth. Monospot test, ANA, Rheumatoid factor, RPR, p24 Antigen, PCR for HIV, Parvovirus B19 IgM, Cryoglobulin, p-ANCA, C-ANCA and Hepatitis serology were all negative. CXR and EKG was normal. Skin biopsy revealed leucocytoclastic vasculitis. A diagnosis of ASD was entertained and treatment with oral corticosteroids was commenced. He was never administered any antibiotic during this period. The patient had a remarkable clinical response and was discharged on the tenth day, after having remained afebrile for at least forty-eight hours. Discussion: The incidence of ASD is about 0.16 cases per 100,000 population per year. The patient met the criteria for the diagnosis of ASD. (Fever> 39° C, Arthralgias, WBC > 15000/ mm³, RF< 1: 80, ANA < 1: 100). The high Serum Ferritin levels and skin biopsy were also favorable for diagnosis of ASD. It has been suggested that Serum Ferritin Levels > 3000 ng/ ml in a patient with compatible symptoms should lead to suspicion of ASD, in the absence of bacterial or viral infections, although at present it is not one of the diagnostic criterion.

Pure red cell aplasia – recurrence during pregnancy. Visweshwar N, Chen W, Shaaban H, Reid O and Guron G, Department of Hematology/Oncology, St.Michael's hospital, Newark, NJ Abstract. # 103- Seton hall Univ.Journal 2004

Anemia of pregnancy is usually secondary to a dilutional effect or from hematinic deficiency. Occasionally other causes such as microangiopathic hemolytic anemia, aplastic anemia and pure red cell aplasia can cause anemia during pregnancy. *Case report:* A 24 year old H/F presented in Aug.2002, 25 weeks pregnant with symptoms of shortness of breath and tiredness. Pt. was taking hematinics. On clinical examination apart from pallor patient did not have icterus, splenomegay or leg ulcers. She was never transfused. Investigations showed Hb.6.3gm%. MCV 82 fl. Hct 14.9 WBC Ct. 7.4 and Plt.Count 1,94,000/cmm. reticulocyte Ct. 1.9%. Hb. Electrophoresis: Hb.A 97%, Hb. A2 3%., Rh. Factor –ve., ANA –ve., Anti ds DNA –ve. Parvo virus IgM Ab.0.29, Haptglobin 41 mic gm/dl, Direct Coombs Test –ve, Se. Iron & TIBC WNL, Se. Ferritin 202 ng/ml. Erythopoietin 2.3mu/ml. LDH 121 IU/L. LFTs – WNL. TSH 3.01. B/M examination showed normal myeloid and megakaryocytic series with erythroid precursors 12%. Chromosomal study and immunophenotyping of B/M were within normal limits. Se. protein electrophoresis was normal. A diagnosis of **Pure red cell aplasia** induced by pregnancy was made. After detailed discussion with the patient, packed cell transfusion and other supportive measures were commenced. Patient proceeded through the pregnancy and delivered a live baby. After delivery, patient. was lost for follow up and in Feb 2004 was readmitted with symptoms of tiredness and easy fatigability. Pt. was examined by the gynecologist who confirmed 25 weeks of pregnancy. Her Hb. on admission was 6.3. Present plan is to transfuse packed cells at monthly intervals till delivery.

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Dated: September 13th 2010

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Treatment of HIV infection with highly active retroviral agents has decreased overall morbidity and mortality. Adherence to treatment is needed to achieve its beneficial effects. Various measures including pill count , interview with composite adherence score, HIV viral load have all been used to evaluate adherence to HAART. In this etrospective study of 363 patients attending the HIV clinic of an inner city hospital we meadured the ANC and CD4 counts before and after initiation of HAART . Our data showed that the ANC and CD4 count before was 2.5/cmm. and 306/cmm and after initiation of HAART were 2.4/cmm. and 323/cmm. respectively. Our data supports the view that current HAART is fraught with high degree of non compliance.

Kikuchi–Fujimoto Disease in HIV – Presenting as F.U.O Visweshwar I MD, Rojas R MD, Sudheendra R MD and Tacsa L MD ***Jersey City Medical Center, Jersey City, NJ.- case report- Oct. 2003:Mount Sinai Med. Journal***

KIKUCHI-FUJIMOTO disease is a self-limiting illness characterized by pyrexia, neutropenia and lymphadenopathy. Originally described in young women of oriental descent, it was first reported in Japan in 1972 by M. Kikuchi and independently by Y. Fujimoto. Kikuchi's disease is a differential diagnosis for patients presenting with high-grade pyrexia and lymphadenopathy with negative microbiological and immunological investigations. Excisional biopsy of the affected lymphnode not only has the diagnostic value but it also has a therapeutic benefit with defervescence of fever over the next few days after the excision of the affected lymph node. Most of these patients resume their routine activities by 3 months. Cervical lymphnodes are affected in more than 75% of cases. Pyrexia with no focal signs or symptoms apart from lymphadenopathy is the hallmark of this disease. There may be associated splenomegaly or hepatomegaly. Other clinical features are arthromyalgia, cutaneous rash, sweating and in about 50% of cases profound neutropenia. Our case presented shows that lymphadenopathy in patients with HIV infection can be due to variety of reasons including unrelated conditions like KIKUCHI-FUJIMOTO disease and one should have an open mind in approach.

REVERSIBLE SEVERE BRADYCARDIA AND ASYSTOLE INDUCED BY TRANSIENT HYPOXIA I. Visweshwar and A. Ameen Jersey City Medical Center, Jersey City, NJ 07304.

Learning Objectives: Recognize that transient hypoxia can result in severe bradycardia and asystole .Distinguish between vagally -mediated and anoxia -induced bradycardia. Need for adequate oxygenation prior to suctioning patients on ventilator.

A 46 year - old male was admitted to the Intensive care unit after having jumped from a height of twenty feet in an attempted suicide-bid. He had sustained fractures of the pelvis and shaft of the humerus. He developed ARDS on the third day and needed ventilatory

between BK viruria and the severity of HC and a strong correlation between BK viruria and the severity of HC and a strong correlation between BK viruria and BK viremia. More studies are needed to find the implications for early diagnoses and treatment of BK viral infectious limits.

Unusual case of chronic renal failure secondary to PNH – Visweshwar Nathan, MD.,Pillai Sujesh, Razzak Abdul MD, Saini Harjinder MD and Uhm Peter MD- 16th Annual Research Colloquium of Seton Hall Univ. 2005

Paroxysmal Nocturnal Hemoglobinuria (PNH) is an acquired stem cell disorder characterized by intravascular hemolysis, venous thrombosis and marrow failure state. This is due to defective X-linked gene – PIG-Class A, leading to lack of GPI anchored complement regulatory proteins CD55 and CD59 leading to chronic hemolysis, chronic hemoglobinuria with tubular dysfunction. We are reporting a dialysis dependant patient with chronic renal failure who was eventually diagnosed to have PNH. **Case report:** This 42 year old Hispanic male presented with recent onset of colicky abdominal pain that was associated with nausea and vomiting. He also complained of fever with chills with yellowish discoloration of sclera. Past medical history was unremarkable except that 10 years ago he was told that he had a kidney problem. Clinical exam was unremarkable. Investigations revealed Hb. of 8.6gm%, Hct.24.8,WBC 4.1,Plt.142,000 MCV85, PT13.5, PTT 32.0,BUN 70,Cr.14.5,Phos.9.6, CPK 1145, total bilirubin. 4.1 DB 1.4,albumin 3.5g, SGOT 433,SGPT40,ALP40,Amylase 351,Lipase78,and Retic.Ct. 6.4% U/S Abd:Biliary sludge and Rt. Kidney 11cm and Lt. kidney 13.5am. with hyper echoic pattern. Pt. is HIV-ve, HBsAg+ve. UA-turbid urine with ketones >80, Se.Ferritin 930, B12 440,LDH 3171, RF 640IU, ANA-ve, C-ANCA –ve, C3 91(92-180), and C412(9-34). B/M Bx.-Normal. Renal Bx.-showed deposition of iron in sub epithelial and mesangial cells. CD55 and CD59 assay in peripheral blood were markedly decreased. A diagnosis of PNH with acute on chronic renal failure was made and he patient was commenced on hemodialysis. **Summary:** We are reporting a case of acute on chronic renal failure secondary to iron deposition in the kidneys from long standing hemosiderinuria from PNH. In the last 10 years of Medline search we could not find a reported case of renal failure as presenting feature of PNH. MRI of the kidneys is the investigation of choice to diagnose renal involvement from PNH. PNH cases reported in Medline with renal involvement were benign and completely reversible. There were mainly changes of tubular dysfunction. Eculizuamb, a humanized monoclonal antibody that inhibits terminal complement by binding to C5 and Aptamers, which bind to C8 and C9, have been found to be useful in patients with hemolysis and methemoglobinuria in PNH.

Double Bence Jones Proteinuria

A. Anis MD, A. Sehbai MD, Ericson Solveig MD, Nathan Visweshwar MD.
MBRCC, West Virginia University Hospitals, Morgantown, WV- ACP meet Pittsburgh 2005

A 66-year-old Caucasian male was recently referred to us for evaluation of a pathological fracture of the distal femur. Patient had pain in the right leg for 3 weeks and sustained a fall after which radiographic studies showed the fracture. Orthopedic surgery saw patient and a trochanteric nail was placed in the distal femur. The distal right femoral IM reamings were sent for pathology and it was reported as plasmacytoma showing kappa light chain restricted plasma cell proliferation. The plasma cells were shown to be monoclonal for kappa and negative for lambda utilizing the FISH technique. They were positive for CD-138. Pancytokeratin and CD-20 were negative. CBC showed a WBC count of 4700, hemoglobin 11.1, hematocrit 32.7, MCV 91, platelet count of 603,000. Differential showed PMNs 68%, lymphocytes 22%, eosinophils 0%, monocytes 9%, basophils 1% and an ANC of 3150. Sodium 133, potassium 4.4, chloride 104, BUN 13, and creatinine was 1.2. Anion gap was 3. Corrected calcium was 10.32. Phosphorus 3.9, albumin 2.6, total bilirubin 0.7, AST 32, ALT 31, alkaline phosphatase was 110, LDH was 170. TSH was 1.27. CEA level was less than 0.5, and a PSA level was 3.6.

A random urine electrophoresis showed monodispersed band in the beta/gamma region with an increased quantity of low molecular weight serum proteins in the specimen. The random urine immunofixation studies showed a monoclonal *IgG lambda* plus free monoclonal lambda light chains. It also showed a monoclonal *IgG kappa* plus free monoclonal kappa light chains detected. This was confirmed by quantitation and tissue staining by pathologist. The serum electrophoresis showed a zone of restriction in the beta/gamma region. The immunofixation electrophoresis showed monoclonal IgG lambda as well as monoclonal IgG kappa. The serum IgG level was 4880, and a serum kappa level was 5710 mg. Bone

nucleated cell dose (TNC) based on pre cryopreserved sample was 2.57 (1.88-3.96) X 10^7/Kg. Patients were infused with median of 1.99X10^7/Kg. All 8 patients engrafted. The median time to achieve ANC 200/cmm.,500/cmm and 1000/cmm. were day 22 (17-30), day24 (20-35) and day 26(23-38) respectively. The median time to platelet count 20X109/L for 6 patients was 64(47-156) and 50X109/L for 3 patients was 170(56-172). All patients achieved 100% donor chimerism on day30. 7/8 had 100% donor chimerism on day100. One patient had donor chimerism on day 100 and was found to have a leukemic relapse soon after. Five patients developed BK virus induced hemorrhagic cystitis at the median time of day 48(35-60). Two patients required surgical intervention, one of which is currently asymptomatic. Our preliminary results suggest that UCB-SCT is an appropriate alternative for adult patients with high risk hematological malignancies who lack a suitable donor.

Late onset hemorrhagic cystitis following stem cell transplant: Risk factors and outcomes. Jambay N. Amin A, Visweshwar N, Ojha R, Mohsen R, Randhawa D, Stives S, Manna P, Benn H, and Nath R. Bone marrow transplant center , St. Joseph's Regional transplant Center Paterson NJ. Virocor, Lee's Summit MO, USA- Abstract presented in ASCO 2005

Hemorrhagic cystitis following stem cell transplantation is classified into two types, based on causes and time of appearance. Early onset HC occurs within 48 hours from the preparative regimen and has been reported to be associated with viral infections. We retrospectively analyzed clinical records of 41 patients who underwent SCT between June 2002-June 2004. Median age 54yrs (20-74) M/F: 2:1. AML/MDS-15, ALL-4, CML-2, NHL/HD -14, MM -4 and solid tumor 1. Twenty-two patients received allogenic stem cell transplants (matched sibling 10, matched unrelated 2, cord blood 10, and ABMT -19. Conditioning regimen included BEAM – 8, BU/CY-Thiotepa 17, TBI/Cyclo-4, Melphalan /Fludara-12. 16 patients were considered to have poor risk disease (those beyond first complete remission in relapse) and 2 patients had good risk disease. HC was defined as RBCs in the urine without any trauma and persistence for >7 days. All patients who developed HC were tested for BK virus, CMV and adenovirus in the urine and blood which were measured by real time assay. HC was detected in 11 patients (26.8%), 8 of which had BK viruria: median of 25 days (11-60) days. None of these patients were detected to have CMV or adenovirus. No patient had received cord blood developed HC, while only two patients who did not have cord blood transplant has HC (p.0001) Two patients who had BU/CY / Thiotepa developed HC compared to one patient who did not have the same regimen developed HC(p.001) . Eight patients who developed HC died compared to only six patients who did not develop HC and died (p.003). Among the 28 males, 10 patients developed HC compared to one female patient who developed HC (p.126). **CONCLUSION:** Three predisposing factors were identified for the development of HC. Cord blood transplant (p.002). Busulphan (p.002) and poor risk group (p.001). The mortality rate was significantly higher among patients who developed HC

Relationship of BK viral load in blood and urine with the severity of hemorrhagic cystitis (HC) after hematopoietic stem cell transplantation (HSCT) Jambay N, De Bari V, Manna P, Visweshwar N, Chang D, Lange M, Sterrett J, and Nath R. St. Joseph's Regional Transplant center, Paterson, NJ and Virocor Laboratories, Lee Summit, MO, USA-16th Annual Research Colloquium of Seton Hall Univ. 2005

Hemorrhagic cystitis is a frequent and serious complication after HSCT. An association between BK virus in the blood and urine and late onset hemorrhagic cystitis has been described in the literature. The role of BK virus in the pathogenesis of HC is currently unknown but it has the strong temporal relationship between the onset of viruria and HC. We retrospectively analyzed the records of eight patients who had BK virus associated HC after HSCT seen in our institution from June 2002-2004. All patients were male with a median age of 51(24-61) years. The severity of HC was graded according to the number of RBCs in urine. Grade 1(RBCs <50), grade 2 (50-100), Grade 3 (>100) and grade 4 (Macroscopic).Grade 1 and 2 were subdivided to 1a/2a (without symptoms) and 1b./2b (with symptoms). BK viral load in blood and urine specimens was measured by real time PCR assay done by Virocor laboratory. The Shaporo 0-Wilks test was used to determine goodness to fit for normal distribution. The data were found to be non-normally distributed and so correlations were assessed using sperman's rho method. **Result:**There was significant correlation of BK viral load in the urine with the number of RBCs in urine (p.00005) with 95% confidence interval. There was as also a significant correlation if BK viral load in the blood than with BK viral load in urine (p.0008). **Conclusion:** This study suggests a strong correlation