**List of Publications on 2008**

1) Pradeep R, Madhumathi DS, Lakshmidevi V, Premalata CS, Appaji L, Patil SA, Swapnil B.


**Bilateral nephromegaly simulating wilms tumor: a rare initial manifestation of acute lymphoblastic leukemia.**

Abstract:

A 7-year-old boy was referred with a provisional diagnosis of bilateral Wilms tumor. Peripheral smear revealed elevated leukocyte count with 90% blasts. Bone marrow aspiration and biopsy were hypercellular with sheets of blasts. Immunohistochemistry on paraffin sections showed a pre-B phenotype of acute lymphoblastic leukemia. Computerized tomographic scan of the abdomen showed moderate bilateral renal enlargement. Ultrasound-guided fine needle aspiration cytology of both kidneys showed blasts similar to those seen in the bone marrow. Finally, a diagnosis of pre-B acute lymphoblastic leukemia infiltrating both the kidneys was made. This case is being presented because of its rarity.

2) Chennagiri Srinivasamurthy Premalata | Davanam Satyanarayana Madhumati | Vishweshwariah Lakshmidevi | Rudramurthy Pradeep | Lingappa Appaji | Geetashree Mukherjee

Journal: Turkish Journal of Hematology ISSN 1300-7777
Volume: 25; Issue: 04; Start page: 201; Date: 2008;
Original page

**Gum hypertrophy - an unusual presenting feature in a case of precursor T-cell acute lymphoblastic leukemia**

Abstract:

Acute lymphoblastic leukemia/lymphoma, the malignant transformation of T-cell or B-cell precursors, is the most common diagnosis in pediatric oncology. Precursor T-cell acute lymphoblastic leukemia/lymphoma commonly affects adolescents, and is associated with mediastinal mass in over half of the cases, with early dissemination to bone marrow, gonads and the central nervous system. We present a rare case of precursor T-cell acute lymphoblastic leukemia/lymphoma with initial oral manifestation, presenting with the unusual features of gum hypertrophy and involvement of upper jaw and palate in a 10-year-old boy. This report discusses the clinical presentation, histopathologic and immunologic features, and diagnosis of this malignancy.

3) Premalata CS, Rama Rao C, Padma M, Vijaykumar M.

Myxoinflammatory fibroblastic sarcoma--report of a rare case at an unusual site with review of the literature.

Abstract:

We report a case of myxoinflammatory fibroblastic sarcoma in a thirteen year old girl who presented with a tender swelling in the left upper back. The tumor consisted of varying proportions of inflammatory, myxoid and hyalinized areas. Large bizarre cells with virocyte like inclusions and lipoblast like cells were present. To the best of our knowledge this is the first reported case of myxoinflammatory fibroblastic sarcoma of the back, the extremities being the commonest site of involvement. Due to its varied histologic appearance, the tumor should be differentiated from various benign and malignant soft tissue lesions.


Homocysteine, vitamin B12 and folate status in pediatric acute lymphoblastic leukemia.

Abstract:-- OBJECTIVE:
The cause of majority of acute leukemias is unknown, but likely to involve interaction of environment, hematopoietic development and weak susceptibility loci within an individual's genetic constitution. The present study evaluates the association between plasma levels of homocysteine, folate and vitamin B12 and acute lymphoblastic leukemia.

METHODS:
Plasma levels of homocysteine, folate and vitamin B12 were compared between cases of acute lymphoblastic leukemia and age and sex matched normal controls. Homocysteine levels were measured by solid immunoassay, while folate and vitamin B12 levels were determined by radioassay.

RESULTS:
Folate levels were significantly among cases as compared to control group (8.56 +/- 4.35) vs (14.04 +/- 2.62) ng/ml, P< 0.001). Although individually vitamin B12 and homocysteine were not significant different between cases and controls, the combined effect of all three parameters was significantly different (P< 0.001), with 83.3% of correct classification of cases and controls was obtained by discriminate function analysis.

CONCLUSION:
The data provide evidence for the role of folate, vitamin B12 and homocysteine levels in acute lymphoblastic leukemia, suggesting that gene-environment interaction may be an important factor in the development of acute lymphoblastic leukemia


Acute toxoplasmosis in nonstem cell transplant patients with haematological malignancies: a study from a regional cancer institute in South India.

Abstract:-
The frequency of Toxoplasma gondii (T. gondii) infections was investigated during febrile episodes in nonstem cell transplant patients with haematological malignancies (HM). One hundred and sixty-two febrile episodes in 125 HIV-negative patients with HM undergoing treatment at Kidwai Memorial Institute of Oncology, Bangalore, India comprised the study group. Plasma from anticoagulated whole blood was used for amplifying the B1 gene of T. gondii by nPCR. Specific antibodies to T. gondii (IgM and IgG) were tested using commercial kits. Corticosteroid and cotrimoxazole usage during these episodes was 50 and 41%, respectively. Twenty-two of the febrile episodes (14%) were positive for T. gondii; nine of which did not have any other concomitant infecting pathogen and were seen in symptomatic patients. While majority of these (13%) were 'Toxoplasma infection', there was a single case of 'probable Toxoplasma disease' (0.6%). In four of the fatal febrile episodes, T. gondii was the causative agent; two of which did not have any other concomitant infection. None of the patients had undergone stem cell transplantation.


Regulatory T cells in a spectrum of HPV-induced cervical lesions: cervicitis, cervical intraepithelial neoplasia and squamous cell carcinoma.

Abstract
PROBLEM:
Thriving of tumors amidst rich immune infiltrates is an unexplained paradox.

METHOD OF STUDY:
Immune markers on lymphocytic infiltrates in HPV-positive cervicitis, cervical intraepithelial neoplasia III (CIN III), squamous cell carcinoma (SCC) and normal cervices were characterized immunohistochemically. Regulatory T cells were enumerated and phenotypically characterized using antibodies to FOXP3.

RESULTS:
SCCs had higher numbers of CD4 and CD8 cells; infiltrates expressed more CD25, TGFbeta, and IL10 but had significantly lower IL2 compared with cervicitis and CIN III. Expression of CD25 and IL2 correlated well in cervicitis and CIN III but not in SCC. FOXP3 expression was also higher and ratios of CD4/FOXP3 and CD8/FOXP3 were lower in SCC. A fraction of cervicitis, CIN I, CIN II and CIN III had natural (n) regulatory T cells (Tregs); their lesional distribution was predominantly intraepithelial in cervicitis, while in CIN they were also present in the stroma. The proportion of FOXP3(+) CD25(+) CD25(-) and TGFbeta(+) CD25(+) in invasive tumors was 17; 19 and 22 respectively.

CONCLUSION:
Cervical tumors are marked by the presence of an immunoregulatory environment, and harbor equal proportions of 'inactive' n Tregs; activated n Tregs; and Tregs operating via TGFbeta. nTregs in cervicitis and CIN may be a potential marker of persistence.


Effect of Vitamin B_{12} and Folate on Homocysteine levels in colorectal cancer

Abstracts:
Folate and cobalamin (Vitamin B₁₂) are two essential micronutrients involved in one-carbon metabolism, which affects heart disease, neural tube defects and cancer. Methylenetetrahydrofolate reductase, the key enzyme involved in one carbon metabolism produces methyl tetrahydrofolate from methylene tetrahydrofolate, which in turn donates methyl group to homocysteine to generate methionine. There exist two common low function polymorphic variants of the methylenetetrahydrofolate reductase gene involving nucleotides 677 C→T and 1298 A→C, which are associated with hyperhomocysteinemia. These polymorphisms are also linked with increased risk for certain cancers such as breast cancer and at the same time providing a protective effect on colorectal cancer. In this case control study, we have evaluated levels of folic acid, vitamin B₁₂ and homocysteine in patients with colorectal cancer. Folate and homocysteine levels did not differ significantly between the two groups; however an increasing trend was noticed with increase in homocysteine levels. Vitamin B₁₂ levels were increased in cases compared to control group.

Radiotherapy in metastatic spinal cord compression: a review of fractionation

Abstract:

Metastatic spinal cord compression, a term normally including compression of the spinal cord or nerve roots running within the spinal canal, is a common complication of systemic cancer, occurring in 5–10% of all patients with cancer. Recent published data on treatment of metastatic spinal cord compression (MSCC) have shown that radiotherapy (RT) alone is an effective approach for the majority of cases. Except for some protocols, the use of conventional RT (daily fractions of 2 Gy to a total dose of 30–40 Gy) has been abandoned in favour of radiation treatment regimens requiring a smaller number of fractions. In some published trials, 4–5 Gy daily for 8 days followed by 4 days rest, and then 5–16 daily doses of 2–3 Gy have been given with both good results and tolerance. Higher daily fractions ranging from 6 to 10 Gy have also been explored with similar results. We have summarized the studies comparing the treatments and clinical outcome. Most patients with MSCC have a life expectancy of only several months. In these patients one radiotherapeutic schedule with a short overall treatment time would be the best option, if its effect on the most relevant clinical symptoms, pain and motor dysfunction, is comparable to the effect of more protracted schedules. In patients with a reduced life expectancy, a radiotherapeutic effect on recalcification, which can be expected only several months after RT, is of minor importance. In patients with a life expectancy of more than a few months, recalcification becomes more of an issue and a more fractionated radiation schedule should be considered.

Key Words: metastatic spinal cord compression, radiotherapy, fractionation, response, toxicity
conventional indices which depends on dose at a point, it is the better method to quantify the dose homogeneity. These results indicate that H and HI indices do not provide the accurate dose homogeneity information, but the S indices uniquely provide quantitative information about the dose homogeneity.

10) T T Maliekal\textsuperscript{1}, J Bajaj\textsuperscript{1}, V Giri\textsuperscript{2}, D Subramanyam\textsuperscript{1} and S Krishna\textsuperscript{1} Oncogene (2008) 27, 5110–5114; doi:10.1038/onc.2008.224

The role of Notch signaling in human cervical cancer: implications for solid tumors

Abstracts:-

The detection of intracellular forms of Notch1 in human cervical cancers more than a decade ago prompted an investigation into the possible role of this pathway in driving these cancers. These tumors are consistently characterized by features of deregulated ligand-dependent signaling. Although Notch signaling complements the function of papillomavirus oncogenes in transformation assays of human keratinocytes, there are dose-dependent effects, which inhibit growth of established cervical cancer cell lines. Two pro-oncogenic effector mechanisms that have been suggested to operate in this context by Notch signaling are the activation of PI3K/Akt pathway and the upregulation of c-Myc. Collectively, there is a complex interplay between Notch signaling and papillomaviruses in the context of cervical carcinogenesis. Better animal model systems and identification of human cervical cancer stem cells should help clarify the possible stage specific and pleiotropic effects and regulation of Notch signaling.

Keywords:

Notch, cervical cancer, HPV

1. 11) U. D. Bafna, K. Umadevi, M Savitha

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Closed suction drainage versus no drainage following pelvic lymphadenectomy for gynecological malignancies

Abstract:-

Abstract. Bafna UD, Umadevi K, Savitha M. Closed suction drainage versus no drainage following pelvic lymphadenectomy for gynecological malignancies.

The present study was undertaken in the Department of Gynecologic Oncology, Kidwai Memorial Institute of Oncology, Bangalore between October 1998 and July 1999. One hundred and forty three consecutive patients with various gynecological malignancies undergoing pelvic ± aorto-caval lymphadenectomy as part of definitive surgical procedures, were analyzed. Sixty nine patients had closed suction retroperitoneal pelvic drainage (Group A) and 74 patients had no suction drainage and no pelvic reperitonealization (Group B). The mean postoperative
hospitalization was 10 days in both groups. Six patients in Group A and four patients in Group B developed paralytic ileus which responded to conservative line of management. Five patients in Group A and two patients in Group B developed lymphocysts ($P > 0.05$). The present study demonstrates that closed suction retroperitoneal pelvic drainage following pelvic + aorto-caval lymphadenectomy confers no advantage over no drainage & no pelvic reperitonealization. The partial closure of pelvic peritoneum with no drainage was associated with increased lymphocyst formation (7/25 cases, 28%) during the period immediately before this modified study was undertaken.

Keywords:

- closed suction pelvic drainage;
- lymphocyst;
- pelvic reperitonealization