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ENDOSCOPIC APPROACH TO BENIGN ORBITAL LESIONS

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Aims: To study the feasibility, prerequisites, advantages and disadvantages of endoscopic management of the benign orbital lesions. **Material & Method:** Retrospective study of 46 cases from Jan 2003 to Sep 2007 who underwent endoscopic orbital procedures including Endoscopic DCR in 39 cases, Orbital decompression in 3 case, Excision of tumor with orbital involvement in 2 cases, Optic nerve decompression in 1 case and Orbital abscess drainage in 1 case. Endoscopic procedures were done with assistance of bipolar cautery, KTP-532 laser as and when required. Regular follow up with endoscopic examination and cleaning of the operated area done. **Observation & Results:** In DCR -Symptom improvement in 93% cases. Recurrence was nil with laser while was seen in 10% with conventional DCR. Complication were minimal in form of granulation in 10% & synechiae in 5%. In other procedures, post op improvement in visual acuity, diplopia & proptosis was good (except in one case). Complication were nil. **Conclusion:** It is an excellent & innovative approach. Advantages- better visualization, decreased, morbidity & operative stress, acceptable cosmetic results, minimal post-op diplopia.

ENDOSCOPIC MANAGEMENT OF THE BENIGN SINO-NASAL TUMORS

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Objectives: To study the feasibility, prerequisites, advantages and disadvantages of endoscopic management of the benign sino-nasal tumors. **Methods:** Retrospective study of 42 cases from 1996 to 2007. Inclusion criteria- all consecutive cases of histologically proven benign tumors, clinical/endoscopic and radiological extent of the tumor confined to- nose, nasopharynx, paranasal sinuses, medial orbit and/or Pterygopalatine fossa. Exclusion criteria- all tumors with intracranial, infratemporal, orbital apex and/or parasellar region extension. Endoscopic excision of the tumors done with assistance of bipolar cautery, microdebrider or KTP-532 laser as and when required. Regular follow up with endoscopic examination and cleaning of the operated area done. **Observations & Results:** Blood loss was minimal (average 250 ml), complete removal of the tumor in the first stage was possible in 39 out of 42 cases. After revision surgery in 3 cases, all are disease free. **Advantages-** less morbidity, quick recovery, cosmetically acceptable, cost effective. **Disadvantages-** piece-meal removal of the tumors, require regular follow-up, may need revision/ planned multiple procedures. **Conclusion:** Endoscopic management of the benign sino-nasal tumors is a suitable alternative to external approach, as complete excision is possible with less morbidity and better cosmesis. But proper pre-operative planning, selection of cases and regular post-operative follow-up is necessary. Bipolar cautery, microdebrider and KTP-532 laser are useful tools.

KTP-532 LASER IN THE MANAGEMENT OF BENIGN CRICOPHARYNGEAL DISEASE.

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Disorders of the cricopharynx are a relatively common occurrence. Benign conditions like cricopharyngeal dysfunction due to neurological disorders, cricopharyngeal web and stricture and pharyngeal pouch present commonly with dysphagia. Myotomy via an external approach is commonly done for cricopharyngeal dysfunction. We have used laser under microendoscopic guidance for myotomy with good results. Similarly, we have used KTP-532 laser for cricopharyngeal webs, benign strictures and pharyngeal pouch. In this paper we will highlight the advantages of the use of laser in comparison to traditional techniques.

LASER ASSISTED POSTERIOR TRANSVERSE CORDOTOMY

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Tracheostomy is the commonest emergency treatment for bilateral vocal cord paralysis in the adducted position. Various procedures have been done to improve the airway like endoscopic lateralisation and arytenoidectomy which tend to compromise on voice and may lead to aspiration. With the advent of laser newer techniques have been developed other than laser arytenoidectomy. Laser posterior cordectomy was done with good results. Later the incorporation of medial arytenoidectomy had shown that airway improved without the problem of aspiration. We have done KTP laser assisted posterior cordotomy in 25 patients from 1999-2007. Other than bilateral abductor palsy we have also used this technique along with laryngotracheoplasty for laryngotracheal stenosis and in persistent laryngeal oedema following radiation. In this video, the technique is described.

LEIOMYOMA OF NOSE-OUR EXPERIENCE

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Leiomyomas are rare tumors of nasal cavity and paranasal sinuses. Only 23 cases have been reported so far in literature. In our opd we had a case 32 years old male with complaint of right sided nasal block and epistaxis since 2 years. On examining there was a pink lobular vascular mass seen between septum and right middle turbinate. Endoscopic bipolar cautery and excision was done. Biopsy later revealed it to be leiomyoma. I am presenting this case report to you because of it being unique and rare.

of the micro-architecture of bone trabecular network (which is the qualitative change) in accordance with the decrease in BMD in the osteoporosis.

A COMPARATIVE STUDY OF THE HEMATOLOGICAL PARAMETERS IN D – DIMER POSITIVE PATIENTS WITH DISSEMINATED INTRAVASCULAR COAGULATION(DIC) OR THROMBOSIS

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Introduction - D – Dimer test is one of the most important diagnostic tools for the diagnosis of DIC and thrombosis. The interpretation of d – dimer in DIC and thrombosis depends on the clinical picture and correlation with other lab parameters. The relevance of the present study is to identify the hematological markers which would be helpful in the early diagnosis and differentiation between DIC and thrombosis. **Objectives** 1. Compare the significance of the hematological parameters in patients with DIC and thrombosis with D – Dimer positivity.

2. Evaluation of the significance of hemolysis and infection in patients with DIC and thrombosis with D – Dimer positivity. 3. Study the relationship of thrombocytopenia in DIC and thrombosis with D – Dimer positivity. **Materials and methods** - A retrospective study of 72 patients diagnosed clinically as DIC or thrombosis with positive D – Dimer test during 2005 – 2006 was done. The clinical data was taken from medical records department of Kasturba Hospital, Manipal. The hematological parameters including peripheral smear done on the same day, complete blood counts and coagulation profile of all these patients were taken. The clinical and lab data were analyzed. **Results** - In the present study, out of 72 cases, 58 cases were clinically DIC while 14 were cases of thrombosis. Out of 58 D – dimer positive cases of DIC, 44(75.8%) cases were due to sepsis, 4(7%) were of malignancies, 5(8%) were due to obstetric causes and 2(3%) were due to snake bite. Thrombocytopenia was present in 50% cases of sepsis and malignancy while it was 100% in the obstetric cases. Polychromasia was seen in 33(56.8%) cases either alone or in combination with other features of hemolysis. Microangiopathic hemolytic anemia was seen in 17/58 (29.3%) cases of DIC. Out of 58 cases, 39 (67.2%) cases showed evidence of leucocytosis and neutrophilia. In sepsis and obstetric cases the evidence of infection was seen in 68.2% and 60% respectively. Deranged coagulation parameters were seen in 37(63.8%) cases with derangement of both PT and APTT in 19(32.7%) and PT alone in 15(25.8%) cases. Out of the 14 D – Dimer positive cases with thrombosis, 10 (71.4%) were venous while 4 (28.6%) were arterial. Polychromasia was seen in 13(92.8%), out of 14 total cases considered while thrombocytopenia was seen in only 2 (14.2%) cases. Leucocytosis alone or in combination was seen in 10 (71.4%) of the cases. Coagulation parameters were deranged in 10 (71.4%) cases with 8 (80%) of these having venous thrombi. **Conclusion** 1. Sepsis was the most common cause of D – Dimer positive DIC. The reliable markers for DIC include thrombocytopenia and deranged coagulation parameters. 2. In D – Dimer positive cases of thrombotic deranged coagulation parameter was a consistent finding while thrombocytopenia was not a significant feature. 3. Leucocytosis with neutrophilia was a prominent feature in DIC due to sepsis and obstetric cases while leucocytosis alone was significant in the thrombotic cases. 4. Microangiopathic hemolytic anemia and the evidence of hemolysis were seen in DIC while polychromasia was the only feature noted in thrombosis.

EFFECT OF TRACE METALS ON CELL SURFACE HYDROPHOBICITY OF STAPHYLOCOCCUS EPIDERMIDIS.

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Aim: To study the effect of trace metals on cell surface hydrophobicity of *Staphylococcus epidermidis*

Material and methods: *Staphylococcus epidermidis* strains N- 203 and MTCC-435 were grown in chemically defined medium. The trace metals used in the study were Ca^{2+} , Co^{2+} , Cu^{2+} , Fe^{3+} , Mg^{2+} , Mn^{2+} , Ni^{2+} and Zn^{2+} . Different concentrations (0.01mM, 0.05mM and 0.25mM) of trace metals are incorporated in the CDM. The cell surface hydrophobicity was determined using Rosenberg et al method. **Result and conclusion:** Bacteria grown in CDM without trace metals showed less hydrophobic properties. Though all the metals tested enhanced the hydrophobicity, Ca^{2+} and Mg^{2+} significantly enhanced the hydrophobicity of *S.epidermidis*. Bacteria grown in the presence of increased concentration of Mn^{2+} had less hydrophobic property. Since cell surface hydrophobicity of bacteria is the initial step of colonization, these findings could help to understand catheter related infections caused by *S.epidermidis*

EFFECT OF TRACE METALS ON SUSCEPTIBILITY OF SALMONELLA TYPHI TO HUMAN SERUM

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Background and Objectives: Resistance to the bactericidal effect of human serum is a virulence trait encountered in bacteria having propensity to invade blood stream. This study was designed to study the effect of trace metals on susceptibility of *S.typhi* to human serum.

Methods: Serum bactericidal activity was determined using the method described by Hughes. The kinetics of interaction of human serum with *S.typhi* grown in varying concentration of metals was assayed and percentage survival was determined.

Results: Calcium and magnesium did not have any significant effect on susceptibility of *S.typhi* to PNHS. Copper ions provided resistance to bacteria against lethal effect of human serum. Iron and zinc were found to enhance killing by PNHS.

Conclusions: Trace metals occupy a central role in the battle between host and the parasite. The findings illustrate that the metal ions influence bactericidal effect of human serum in different ways.

GLANZMANN'S THROMBASTHENIA: THE MANIPAL EXPERIENCE.

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Introduction: Glanzmann's Thrombasthenia (GT) is an autosomal recessive disorder of platelet aggregation causing life long bleeding. It is a common disorder of platelet function in the young especially in Southern India where consanguineous marriages are common. The present study is undertaken to evaluate the magnitude of the disease in a tertiary care hospital in South India .

Objectives: 1) To study the clinical spectrum of patients with GT in a tertiary care hospital in South India 2) To correlate clinical and laboratory parameters of GT including the platelet aggregation studies. 3) To identify the sub-groups of patients requiring specialized tests for the diagnosis.

Materials Methods: A retrospective study of 15 patients diagnosed as GT in the Hematology Laboratory of Kasturba Hospital, Manipal during a 2 year period was undertaken . The clinical and the lab parameters were compared. The Lab parameters studied include haemostatic screening tests (BT, PT, APTT, TT, Factor XIII, clot retraction, platelet count, direct smear) and platelet aggregation studies with ADP, Collagen and Epinephrine. Von Willebrand factor assay and platelet aggregation with Ristocetin were done in some cases. **Results:** 1) 14/15 (93%) patients were less than 20years of age.

2) Consanguineous marriage was found in 4 (26.6%) cases.

3) The common clinical presentations were epistaxis and skin bleeds. Majority of the females also presented with menorrhagia. 4) Bleeding Time(BT) was prolonged in 14/15 (93%). Clot retraction was reduced or absent in 10/15 cases (66.67 %). Platelet clumps were absent in 10 cases (66.67%). 5) In 5/15 (33.33%) cases the clot retraction was normal. But 80% of these cases showed increased BT. 6) In 5/15(33.33%) cases small clumps of platelets were seen. 7) Platelet aggregation studies were characteristic of GT in 13 patients (100%) in whom it was done 8) VWF assay was normal in all 11 cases in which it was done. 9) 8/15 (53.33%) cases showed decreased aggregation with Ristocetin.

Conclusion: Consanguineous marriage in 26.67 % of patients was responsible for increased prevalence. Platelet aggregation studies are necessary for a confirmed diagnosis of GT. VWF assay & Platelet aggregation with Ristocetin are other helpful tests to differentiate GT from other common platelet functional disorder

HIGH LEVEL AMINOGLYCOSIDE RESISTANCE AMONG ENTEROCOCCAL ISOLATES

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Background and Objectives: Enterococcal isolates are increasingly being reported as resistant to the routinely used antimicrobial agents. This study was undertaken to determine the incidence of high level aminoglycoside resistance (HLAR) among enterococci, isolated from various clinical specimens at the Department of Microbiology, Kasturba Medical College Hospital, Manipal, India. **Methods:** 192 strains of enterococci, isolated from clinical specimens, over a period of two years were used in this study. Standard techniques were used for isolation and identification. HLAR was detected using agar dilution method. **Results:** HLAR was observed in 45.8 % of *E.faecalis* and in 33.9 % of *E.faecium* strains. **Conclusions:** Routine evaluation of HLAR is essential in formulating treatment guidelines.

INDUCIBLE CLINDAMYCIN RESISTANCE AMONG STAPHYLOCOCCI

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Background and Objectives: Multiple mechanisms which confer resistance to macrolide, lincosamide and streptogramin antibiotics have been reported. This study was undertaken to detect the presence of inducible clindamycin resistance among staphylococcal isolates.

Methods: D-test was performed in accordance with the CDC guidelines for detection of inducible clindamycin resistance. **Results:** Around 13 % of the staphylococcal isolates showed inducible clindamycin resistance and belonged to the MLS_Bi phenotype. Among the MLS_Bi phenotypes, 38% were methicillin resistant *Staphylococcus aureus* and 13% belonged to methicillin sensitive *Staphylococcus aureus* **Conclusions:** Testing for inducible resistance to clindamycin should be done on a regular basis, as it helps in providing accurate therapy.