SELECTED ABSTRACTS FROM NATIONAL MEDICAL JOURNALS

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Fatema Jawad (7/6, Rimpa Plaza, M. A. Jinnah Road, Karachi.)

AMOEBIC INFECTION OF THE EYE. Khan, AJ. Pak. OpthalmoL, 1987 ;3:50-56.
Three cases of amoebic infection of the eye are presented. A 60 years old man came with a painful and congested left eye. On examination the palpebral and bulbar conjunctiva was red with extensive epiphora. He had been operated for glaucoma. The cornea was opaque. There was no hypopyon and the eyeball was tender and soft. Corneal scraping showed gram positive cocci. Culture and sensitivity tests were taken and treatment was started with sub-conjunctival gentamycin 80 mg, gentamycin drops, keflex capsules and oratrol tablets orally. As there was no relief on the next day, another smear was taken from the lower for-nix and stained with H and E. This showed a large number of amoeba proteus both trophozoite and cystic forms. A general examination excluded the involvement of any other system by amoebic infection. After a week the patient recovered but the cornea became totally opaque. The second case was of a 17 year old girl wearing contact lenses. Irritation, photophobia and pain in the right eye followed the washing of her lenses with saline. She was diagnosed as corneal abrasion and treated with antibiotic and steroid drops. Her condition deteriorated after three days and she developed a ring lesion in the cornea. Atropine and neomycin drops were prescribed along with systemic steroids. The pain and photophobia subsided but the cornea! ring with the translucency persisted. Corneal scrapings confirmed acanthamoeba keratitis. The third patient was a 20 years male complaining of dim vision, pain and redness in the left eye. He was diagnosed as chronic corneal ulcer for which a cornea! graft was done. The excised corneal button was examined and proved to be an ulcer due to acanthamoeba. Amoebic infections have been known to involve various organs of the body. Acanthamoeba is a free living protozoa found in water, soil and swimming poois, and has the trophozoite and cystic stage. Acanthamoeba keratitis has been reported commonly in soft contact lens wearers. Diagnosis is confirmed by culture on culbertson's media. Treatment is difficult and various compounds as propamadine isethionate, neomycin, polymixin B and miconazole have been used with relative success. Corneal transplant is usually necessary.

CATARACT SURGERY: AN OUTPATIENT APPROACH. Khan, M.D., Kundi, N., Mohammed, Z., Nazeer, A.F. Pak. Opthalmol., 1987; 3:57-62.
768 patients were subjected to cataract surgery simultaneously on an out-patient basis and as indoor cases in Lady Reading Hospital, Peshawar during the period 1979 to 1985. All patients had a systemic and ocular examination. Urine was tested routinely. Polyfax eye ointment was given for local application two days pre-operatively. Local anaesthesia was used in all but 2 cases. 682 cases had intra-capsular extraction whereas 86 had extra-capsular cataract extraction. Wounds were closed by 3-7 interrupted sutures with 8.0 virgin silk. The patients rested for one hour after the operation and then went home to return after two days for dressing. Sutures were removed after 6 weeks. Atropine and Maxitrol eye drops were instilled locally. Postoperative complications occurred in 3.92% out-door performed cases and in 6.28% of the in-door cases. Cataract surgery has revolutionized with the passage of time and adoption of new techniques. In medieval times couching was done by travelling practitioners. At the beginning of the century cataract surgery patients were nursed for two weeks, lying completely flat in a quiet darkroom. This carried risks of depression, temporary insanity, thrombophiebitis and pulmonary embolism. Now with the use of sutures early mobilization of the patient is possible. Local complications as uveitis and endophthalimitis can be prevented by using sub-conjunctival antibiotics. In the series presented, the out-door operated cases had better results which could be attributed to the fact that surgery was performed by comparatively more experienced

surgeons. They also had the advantage of minimal psycho-logical trauma by remaining in their home surroundings, lesser financial burden and less chances of acquiring hospital infections. It was concluded that cataract surgery on an outdoor basis could be a solution to the problem of a large number of patients blinded by cataract.

A CASE OF MUCOPOLYSACCHARIDOSES: HURLER'S DISEASE. Khan, N.R., Maqbool, S., Khan, S.N., Mohydin, M.A.Z. Pakistan J. Med. Res., 1988; 27:137-142.

An eleven months infant was admitted in Shaikh Zayed Hospital with a scrotal swelling and lumbar kyphosis since 1 week and 8 months of birth respectively. The past history was insignificant. He had 4 normal siblings. On examination the infant was small for his age with frontal bossing and coarse features. The nose was flat, mouth open with prominent lips. Nasal obstruction was present with a hoarse voice. Marked kyphoscoliosis was visible and a swelling was found in the right groin extending to the right scrotum. The blood picture revealed hypochromic microcytic red cells with normal white cells. Biochemical investigations showed a calcium level of 6.9 mg/dI, alkaline phosphatase 518 u/I, both on the lower side. Serum phosphorus and thin layer chromatography for amino acids were normal. An MPS spots test was positive with a confirmatory acid albumin test being strongly positive. Urine analysis was normal. Xrays of dorsolumbar spine showed scoliosis and LI revealed anterior inferior beak. Radiograph of the wrists revealed short expanded metacarpals of both wrists with pointed distal ends. Examination of the eyes showed corneal clouding. The physical signs along with the radiological findings, a positive MPS test and corneal clouding were strongly suggestive of Hurlers disease, an autosomal recessive disorder. Mucopolysaccharidoses are a group of conditions exhibiting mental and physical retardation, multiple skeletal deformities, hepatosplenomegaly and clouding of the cornea. Seven or more syndromes are distinguished by genetic transmission, enzymatic defects and urinary MPS pattern. The principal biochemical disturbance involves the metabolism of mucopolysaccharides. The course of the disease is downhill and death is usually secondary to bronchopneumonia. No therapy has proven successful. Enzyme replacement is still in the experimental stage.

DISORDERS OF HAEMOGLOBIN : A PILOT STUDY ON HOSPITAL PATIENTS. Khan, J.A., Khaliq, M.A., Khan, S.P., Aziz, F., Saeed, A.K. Pakistan J. Med. Res., 1988; 27:97-99.

264 patients with chronic anaemias were studied in the period January 1984 to December 1986 in DHQ Hospital Abbottabad for disorder of haemoglobin. 140 patients were below 4 years of age and 16 were above 30 years. The male to female ratio was 1.5:1. Laboratory tests were performed by collecting 3-4 ml venous blood in EDTA containing vacuotainers. The erythrocytes were separated by centrifuging and then prepared for electrophoresis. Haemoglobin was estimated by cyanmethaemoglobin method; Foetal haemoglobin by alkali denaturation method and Hb-A2byMore-gorowe method. The haemoglobin levels varied between 2 to 14 g/dl. HbF ranged from 5 to 85% and Hb-A2 varied from 3.8 to 9.1%. Out of the total anaemic patients 58 cases had thalassaemia major and 30 cases were of thalassaemia minor. Only one case of sickle cell trait was identified. 304 healthy subjects were studied as a control group. The levels of haemoglobin ranged between 11.8 and 14.4 g/dl. Only 4 subjects had a moderately raised HbF which was identified as hereditary persistence of foetal haemoglobin. This pilot study indicates that disorders of haemoglobin are common in the Pakistani population. Extensive studies should be undertaken to determine the prevalence of haemoglohinopathies. This could be done at the molecular level to improve prenatal diagnosis especially of thalassaemia. The public could thus be made aware of the importance of family planning in such cases to prevent the chances of having an affected child.

CHEMICAL ANALYSIS OF DRINKING WATER OF HAZARA DIVISION. Ahmed, Q.R., Kamran, M.A.J. Rawal Medical Journal, 1986; 15:7-15.

One hundred samples of drinking water from different water sources in Hazara Division were collected and analysed chemically to determine their fitness for human consumption. Water samples were collected from tube wells, springs, reservoirs, shallow wells and rivers in clean colourless bottles according to the methods prescribed by WHO. Chemical analysis was carried out by quantitative

methods, nitrites were determined by Griess Ilosvay's method, nitrates by phenol disulphonic acid method, chloride by argentometric titration and suiphates, magnesium and hardness by compleximetric titration with E.D.T.A. 48 water samples were collected from District Abbottabad, 38 from District Mansehra and 14 from District Kohistan. The results of chemical analysis of these water samples were compared with the International Standards for drinking water by W.H.O. 59 samples of the 100 tested were found fit for human consumption whereas the remaining 41 were declared unfit.
Nitrates in water represent organic pollution. The presence of nitrites indicates faecal bacterial pollution. In the presented survey nitrites were present in 18 samples each from District Abbottabad and District Mansehra and 4 samples from Kohistan whereas 2 samples from Abbottabad and 5 from Mansehra exceeded the maximum allowable limit. A high chloride content in water shows pollution with sewerage. Only one sample from Mansehra contained more than the permitted limit of chlorides. Excess of sulphates in water can cause diarrhoea especiallyin children. One sample fromAbbottabad and 3 from Mansehra were found to have higher than the allowed limit of sulphate. Magncsium again causes gastrointestinal irritation and 5 samples from Mansehra had magnesium levels exceeding the permitted amount. Hard water may cause dyspeptic symptoms. Only one sample from Mansehra crossed the allowable level for hardness. High total solids content in water produce an unpleasant taste and can be found to exceed the permitted limit.

ACUPUNCTURE TREATMENT OF PERIPHERAL NEUROPATHY. Shoaib, M. Rawal Medical Journal, 1986; 15:18-19.

The case of a 42 year old lady diagnosed as idiopathic peripheral neuropathy treated with acupuncture leading tO a complete recovery is presented. The patient developed progressive weakness of all four limbs which first started in distal areas, extending proximally accompanied with sensory loss over a period of one year. She was eventually totally paralysed. On examination she was afebrile, normotensive with no cyanosis, oedema or lymphadenopathy. CNS examination showed sensation of touch, pain and temperature to be absent in all four limbs. There was complete loss of power and absent reflexes in all the limbs without decrease in tone and muscle wasting. Basic laboratory tests were within normal limits and a myelogram showed no block upto the cervical spine; The patient had taken various types of medication including cortisone with no response. All the drugs were stopped and acupuncture therapy started with each session of 45 minutes. The muscle power improved gradually and after 88 treatments there was complete recovery of the muscle weakness and all sensations were restored. After 112 sessions she had fully recovered and restarted her routine household work. She was asymptomatic till one year later at followup. This case can open a new line of treatment for cases of idiopathic peripheral neuropathy where allopatbic treatment has been ineffective.

PNEUMONECTOMY FOR BRONCHIECTASIS FOLLOWING BETEL NUT INHALATION. Ali, S.M.A. Pak. J. Surg., 1988; 4:7-10.

Three cases of total lung destruction due to bronchiectasis secondary to betel nut inhalation are presented. All had a definite history of supari inhalation with destruction of the entire left lung. The first case was of a 12 year old boy who had choked on a supari at 4 years of age. Fle had continuous cough which was occasionally productive and purulent. On examination he was small for his age and anaemic. The sputum on culture gave mixed organisms including Pseudomonas. On auscultation the left lung field was full of coarse noises. The chest Xray revealed collapse of the left lung with air trapping. The bronchogram showed complete loss of lung tissue and replacement with small abscess cavities. Left pneumonectomy was (lone and recovery was complete. The second case was of a ten year old girl with a history of cough with sputum and intermit-.tent fever since 4 years which followed the inhalation of supari. Initially she was scoped in an ENT unit and a supari piece was removed. The sputum was yellowish green and for two months had become copious with continuous fever. Auscultation gave the sound of noises of air bubbling through water. Xray chest with penetrating views revealed gross bronchiectatic changes throughout left lung which was confirmed by a bronchogram. Left pneumonectomy was done and an uncomplicated post-operative recovery followed. The third case

was of a ten year old ill looking, emaciated girl weighing 20 Kg with a history of cough and fever of 3 years duration. The symptoms followed the inhalation of a mouthful of supari. She was given anti-tubercular therapy for 18 months when her cough had persisted for one year. A year later bronchograms were done which showed total blockage of the left main bronchus. Thoracotomy was carried out which revealed firm dark coloured lung which could not expand and full of pus cavities. Left Pneumonectomy was performed which was followed by an uneventful recovery. Bronchiectasis or dilatation of bronchi is produced by a number of contributory factors establishing a vicous circle. Obstruction of a bronchus can be had by the inhalation of a foreign body. Vegetative foreign bodies are not detected. by Xrays and when left longer produce chemical reaction in the lumen and irreversible damage. The 3 cases presented all had the consequences of inhaling a specific foreign body - supan. All the cases did well after pneumonectomy.

FOREIGN BODY ASPIRATION IN THE PAEDIATRIC PATIENT. Khan, S., Moazzam, F. Pak. J. Surg., 1988; 4:11-14.

14 children with ages ranging between 10 months and 10 years were admitted in the Aga Khan University Hospital between October 1986 and February 1988 with respiratory symptoms suggestive of foreign body aspiration. There were 9 males and 5 females. A positive history of aspiration was obtained in 13 cases, whereas persistent cough was the predominant symptom followed by wheezing and fever. Severe respiratory distress was present and examination revealed a decreased air entry on the involved side. Some had a tracheal shift and localized rhonchi. Xray examination showed obstructive emphysema in 7 children with atelectasis and pulmonary infiltrates in 3 cases. Rigid bronchoscopy under general anaesthesia was performed in all the children using Storz Ventilating Bronchoscope within 24 hours of admission. The most common foreign body was fragments of betel nut whereas 4 children had aspirated on assortment of nuts and one child had the tip of a ball point pen lodged in the right main stem bronchus. 7 foreign bodies were impacted in the left half of the tracheo-bronchial tree, 4 children had large suparis in the trachea and 3 in the right main stem bronchus. No post- operative complications were encountered. Tracheo bronchial cultures gave a growth of candida albicans, Haemophilus influenzae, Kiebsiella pneumonia, Pseudomonas aeruginosa, Beta haemolyticus Streptococci and Enterobacteria. The average hospital stay was 3 days. Foreign body aspiration can cause immediate respiratory arrest when the trachea is completely obstructed. If the object passes the sub-glottic region the initial choking is followed by persistent cough, wheeze and unilateral decreased air entry. A radiological examination may be normal unless atelectasis has ensued. Conservative treatment for dislodgement of the foreign body with physiotherapy has a low success rate. In recent years the paediatric Storz endoscopic equipment used under general anaesthesia has made bronchoscopic extraction a safe procedure. Foreign body aspiration in children is a preventable condition. Mass education of parents and care takers has helped in reducing the incidence. Betel nut should be avoided and schools and day care centres should prohibit hawkers to sell supari at their gates.