Pediatric Tumors of the Liver: A Ten-Year Study

The aim of this study was to review the frequency, histopathology, and outcome of hepatic tumors in children.

In this retrospective descriptive study, medical records of 30 children treated for liver tumors from 1996 through 2005, at Children's Hospital Medical Center, Tehran, Iran were reviewed for clinical, radiologic, and pathologic data with more focus on the frequency, etiology, and outcome.

The age of the patients ranged from three months to 12 years (median 3.8 years), with 18 males (60%) and 12 females (40%). Of these, 17 patients had hepatoblastoma (55.66%), including 13 males and four females, with an age range of six months to five years. Four cases (13.33%) had neuroblastoma. Hepatocellular carcinoma (HCC) was found in three cases (10%), all of whom were carriers of hepatitis B. Two cases (6.66%) were diagnosed with mesenchymal hamartoma, two cases (6.66%) with hemangioendothelioma, and two cases (6.66%) with rhabdomyosarcoma and leiomyosarcoma of the biliary tract. Abdominal swelling and hepatomegaly were seen in all patients. Jaundice was observed in two cases. Serum alpha-fetoprotein levels greater than 500 ng/mL were seen in 17 cases (56.66%). All patients received specific treatment. The three-year survival rate was 65% for hepatoblastoma and 2% for HCC.

The introduction of specific treatment has significantly increased the survival rate of children with liver tumors. Further improvement can be achieved using diagnostic biopsy for hepatoblastoma, although it may result in complications, and preoperative chemotherapy followed by complete surgical excision according to the International Society of Pediatric Oncology Guidelines can yield an outstanding survival rate of 80%.

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Comparison of the Efficacy of Resperidon with Haloperidol on the General Signs of Schizophrenia

Different studies have indicated that resperidon alleviates the general signs of schizophrenics more than haloperidol. We compared the efficacy of resperidon (product of Iran) with haloperidol in reducing the general signs of schizophrenia.

Forty-five schizophrenic patients (based on DSM-IV criteria) who had been admitted to Razi Psychiatric Center in Tehran were evaluated before and after this study. After a two-week washout period, the patients were randomly assigned into haloperidol (15 mg/day) or resperidon (6 mg/day) groups. For each patient, the general subscale of Brief Psychiatric Rating Scale (BPRS) and extrapyramidal complication scales were evaluated and recorded at baseline and weekly for eight weeks after initiation of the therapy. Then, the results were analyzed using t-test for paired samples, independent samples t-test, and general linear model repeated measures.

No significant differences were observed in the mean score of general signs between the baseline and weekly exams up to the fifth week of treatment (P>0.05). From the sixth week until the end of the study, the mean score of general signs was significantly lower in the resperidon group compared to the haloperidol group (P<0.05). Both drugs resulted in reduced mean general scores. The pattern of mean general score reduction had a significant difference between the two groups and the intensity of complications was significantly lower in patients receiving resperidon compared to haloperidol group (P<0.05).

Both resperidon and haloperidol reduced the general signs of these schizophrenic patients; however, resperidon was significantly more effective. The side effects of resperidon were significantly less intense than haloperidol.

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Evaluation of Histologic Modifications of Testis and Spermatogenesis in Adult Male Rats on Finasteride

Finasteride, a synthetic 4-azasteroid compound, is a competitive and specific inhibitor of type II 5-α-reductase, an intracellular enzyme that converts testosterone into dihydrotestosterone (DHT). Finasteride is prescribed for nearly all disturbances related to DHT concentration such as benign prostatic hyperplasia, male- pattern androgenic alopecia, hirsutism, acne, and seborrhea. Since finasteride is frequently prescribed in men, the effects of different doses of finasteride on the number of spermatogonia and Sertoli and Leydig cells have been investigated in the present study.

Forty mature male Sprague-Dawley rats were divided into five groups of eight. The first group was kept as the control group and received nothing. The second group, only received distilled water orally, but the last three experimental groups respectively received 25, 50, and 100 mg/kg of BW/d doses of finasteride orally for a 32- day period. Then, photomicrographs of testis tissues were studied and the results in the five groups were statistically analyzed by ANOVA, t-, Tukey, and Duncan tests. $P<0.05$ was considered significant.

Administration of 50 and 100 mg/kg of BW doses of finasteride significantly decreased the number of spermatogonia and 50 mg/kg doses reduced the number of primary spermatocytes ($P\leq0.05$). The number of Sertoli cells showed no significant difference in the experimental groups in comparison with the control group, but there was a significant increase in the number of Leydig cells in all of the experimental groups ($P\leq0.05$). This drug had no significant effects on this density of different kinds of cells, and nuclear or cytoplasmic staining properties of spermatogonia.

Finasteride causes a significant decrease in the number of spermatogonia and primary spermatocytes. It also causes a significant increase in the number of Leydig cells, but it causes no significant histologic effects on the testis or on spermatogenesis. Therefore, it seems that short- term use of the medication may have no harmful effects on male fertility.

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The Prevalence of Macroprolactinemia in Infertile Women with Hyperprolactinemia, and Comparison of Their Clinical and Radiologic Signs

Prolactin exists in three different molecular forms of monomeric, big, and macroprolactin in human serum. Macroprolactin is a complex of prolactin and IgG and may account for a significant proportion of idiopathic hyperprolactinemia. Its biologic activity is considered low or absent, but it is measured alongside free prolactin in common immunoassay methods; thus, can wrongly lead to high prolactin detection, expensive explorations, and ineffective treatments. Conventionally, the diagnosis of macroprolactinemia has been done by gel filtration chromatography, which could not be used routinely. Recently, Polyethylene Glycol (PEG) has been employed to precipitate macroprolactin, allowing its detection rapidly, trustworthily, and inexpensively. The objectives of the present study were to evaluate the prevalence of macroprolactinemia in infertile women with hyperprolactinemia through identification with PEG and to compare the clinical (galactorrhea and oligomenorrhea) and radiologic findings (sella turcica on MRI).

Seventeen infertile women with hyperprolactinemia were investigated for macroprolactin using PEG. Prolactin was measured before and after precipitation of macroprolactin by PEG; a prolactin recovery of $>60\%$ after precipitation was an indicator of macroprolactinemia. The results were analyzed by SPSS software and $P<0.05$ was considered significant.

Macroprolactinemia was diagnosed in six (35%) women. In true hyperprolactinemic women (11 women), galactorrhea occurred in 81.8% and oligomenorrhea in 90.9%, but in macroprolactinemic women galactorrhea occurred in 33.3% and oligomenorrhea in 16.6%. In addition, normal pituitary images were
found in 45.5% of the patients who had true hyperprolactinemia; however, 100% of the women with macroprolactinemia had normal pituitary images.

Macroprolactinemia evaluation by PEG in infertile women with hyperprolactinemia is recommended before extensive diagnostic and therapeutic procedures.

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Quality of Life in Multiple Sclerosis

The patients with chronic illness have physical limitations and consequently develop psychosocial problems. Therefore, simply measuring their physical health is not enough anymore. It is necessary to evaluate the quality of life as an important clinical outcome in these patients. We conducted the present study to measure the quality of life (QoL) in multiple sclerosis (MS) patients and its predictors in comparison to the general population in Tehran, using a generic and overall QoL instrument, the WHO Quality of Life (World Health Organization Quality of life). This questionnaire comprises four domains including physical health, mental health, social relationships, and environmental health. For each domain, scores ranged from 4 to 20; higher scores were corresponding to a more favorable QoL.

This study was cross-sectional and involved 145 systematically selected patients registered in the Iranian Multiple Sclerosis Society. The WHO Quality of Life Questionnaire was filled in for these patients through telephone interviews. The results were compared with QoL scores from the general population obtained from a population-based study in Tehran.

The response rate was 97%; 73.8% of the participants were females, the mean age of the participants was 36.5±10.4 years, and the mean duration of their formal education was 12.5±3.6 years. The mean scores for physical health, psychological health, social relationship, and environmental health were 11.5±3.2, 11.8±3.2, 12.7±3.1, and 11.5±2.7, respectively. In comparison to the general population, the patients' scores in all domains were significantly lower than the general population. In the regression analysis, the severity of disease and education level correlated with domain scores.

The WHO Quality of Life questionnaire was able to compare our patients' QoL with that of the general population and show the effect of disease severity and demographic variables on QoL. Therefore, the questionnaire can be used in this group of patients, although it may be necessary to add some specific questions to make the tool more sensitive in evaluating QoL from a clinical perspective. Educational interventions are recommended to improve QoL in this group of patients.

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Clinical Efficacy of Salbutamol Spray in Treatment of Bronchiolitis

Bronchiolitis is the most common lower respiratory tract infection during the first year of life and is responsible for about 1% of infant hospitalizations. The treatment is mainly supportive, but many studies have emphasized the role of bronchodilators. This study was aimed to show the efficacy of salbutamol spray.

In a randomized controlled trial, 100 patients with bronchiolitis were divided into two groups of 50 patients each. One group received salbutamol spray (two puffs every four hours), and the other group, nebulized 1/1000 epinephrine (0.2 mg/kg plus 3.5 mL saline every four hours).

Inclusion criteria were infants aged two to 12 months with a diagnosis of bronchiolitis as lower respiratory tract infection, accompanied by fever, rhinitis, tachypnea, wheezing, and dyspnea.
Exclusion criteria were patients with cardiac or pulmonary conditions, history of bronchodilator use or hospital admission with wheezing, history of corticosteroid consumption, and ICU admission due to severe bronchiolitis.

The intergroup age and gender differences were not significant (\(P=0.2\) and \(P=0.6\), respectively). Outcome indicators such as length of hospital stay and the time needed to restart normal nutrition had no significant differences (\(P=0.1\) and \(P=0.47\), respectively).

Considering the feasibility of access and participation of parents in treatment and lack of significant differences between the two groups, we suggest administration of salbutamol spray for the treatment of bronchiolitis.

**Authors:** Bilan N, Saiied- Sadri N.

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**Erratum**

In the October 2007 issue of Archives of Iranian Medicine, there was an error which is listed below:


The name of the 12th author must be corrected as Mahmood Gholam Alemohammad.

In the previous issue of Archives of Iranian Medicine (Jan. 2008), there were two errors which are listed below:


The name of the 3rd and 4th author must be corrected as Farzaneh Mollaei, Hamideh Moravej.