Experience with a New Technique for Laparoscopic Hernia Repair in Small Children and Infants

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During recent years, the trend toward laparoscopic approach for hernia repair in children has been increasingly justified [1,2]. The ability to detect and repair the contralateral patencies simultaneously, along with safety of the procedure are the cornerstones of the selection of the laparoscopic approach as a reliable alternative to the conventional open techniques[3].

Although many authors believe that the laparoscopic inguinal hernia repair is superior to the traditional approach in the view of improved cosmesis and fewer recurrences, there are still some issues about its popularity, especially regarding the acceptable cosmetic results, along with the short operative time and brief hospital stay and the high success rate of open conventional technique.

We performed 50 inguinal hernia repairs by laparoscopic technique during 2.5 years from April 2006 to October 2008 in our hospital.

Forty-one children including 34 males and 7 females underwent operation by this technique. Hernia in 25 cases was right-sided and in 7 left-sided. Two patients had recurrence following previous hernia repair through groin incision. 32 cases presented with unilateral hernia and 9 patients had bilateral inguinal hernia.

The age of the patients ranged from 4 months to 5 years. The median age was 11 months. The mean operative time for unilateral repairs was 20 minutes and for bilateral ones 35 minutes. The scars on the abdominal wall were small and minute (one 5mm incision for umbilical port and a 3mm stab incision ipsilateral to the hernia for working cannula) and the cosmesis was excellent. There were no intra-operative complications and we had no conversion. The follow-up rate at six months was 100% and we had no recurrences or any other complications such as testicular atrophy.

Inguinal hernia in pediatric age group is a common problem and all the pediatric surgeons are fully familiar with the various aspects of its traditional surgical repair through the groin incision which has a high success rate and acceptable cosmetic results with few complications[4,5].

By far one of the drawbacks of this conventional technique is its inability to rule out the contralateral patent processus vaginalis and synchronous hernia.

With the advent of minimal access surgery, many pediatric surgeons accepted it, as an suitable and reliable alternative to previous techniques, considering its superiority for handling tissues during repair of recurrent inguinal hernias and also for its capabilities in regard to justifying and managing the synchronous subtle contralateral hernia[6,7].

However, there are still some issues about the introduction of laparoscopic inguinal hernia repair as the gold standard method, specially taking the possible longer operative time and the inevitable need for three separate ports which is the case in routine laparoscopic herniotomy techniques into consideration.

The modified and new laparoscopic technique employed by the authors has an acceptable short operative time with only one working trocar located ipsilateral to the hernia, using extracorporeal tying, that yields excellent cosmesis.

Key words: Laparoscopic surgery; Childhood; Inguinal hernia;

References


Asthma Knowledge Level of Primary School Teachers in Babol, Iran, 2008

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Regarding the fact that two thirds of children's life passes in school, it is important for teachers to have enough knowledge about asthma and how to encounter the disease. Children become panic in asthma attack and this behavior is normal. These children should be supported by other children in the school. Teachers should identify asthmatic patient. Also it is important that patient's classmates be aware of this disease [1]. So, the aim of this study was to assess the knowledge of teachers about asthma and its treatment in order to design asthma plan action based on our findings. This cross-sectional descriptive analytical study performed in winter 2008 with randomized sampling in Babol. After coordination with department of education, 5 or 6 teachers in every school were randomly chosen in all 80 schools. These teachers were given specifically designed questionnaires including demographic data (age, sex and level of education) and 16 questions about asthma knowledge. Each correct answer was graded 1 and wrong answers 0 (the maximum score of knowledge questionnaire was 16). Comments of many epidemiologists and clinicians (specialist in asthma and allergy of pediatric and adult lung specialist) were considered to enhance content validity. The Cronbach's α coefficient (α=0.822) was used to evaluate questionnaire reliability. Study was approved by ethical committee of Babol University of Medical Sciences and Health Services. Data were analyzed by software SPSS, for statistical tests we used Mann-Whitney and Kruskal-Wallis. The mean age of participants (n=425) was 42.7±7.3 years. The results showed that the mean knowledge score of our teachers was 12±2.3. This means that the mean knowledge score was intermediate, while most of researches have shown that their teachers' knowledge level about asthma was low. Frock and colleagues (2008) found an insufficient knowledge about bronchial asthma among 120 teachers of physical education in Schleswig-Holstein University [2]. Abdel Gawwad and collaborators (2007) reported that most of school staff had poor to fair level of asthma knowledge and management practices. They found it very important that training is directed to all staff as pre-service and in-service programs [3]. The results of Rodehorst (2003) indicated that although teachers had a favorable attitude toward asthmatic students, their knowledge about asthma was low[4]. Our results indicate that mean knowledge level of teachers in our study is higher than in other studies performed in the world but regarding the importance and prevalence of the disease in our region, ongoing efforts to improve asthma management in public schools through teacher education and policy development should be supported.

The mean knowledge score of teachers had no significant difference regarding the age (12.2±2.1 in teachers under 40 years and...