

questionnaire. Different behavior of children has been evaluated: perfectionism, ambition, self-esteem, control of food portions eaten, stress-eating as well as paying attention to other's opinion and appearance.

Results Daughters of younger fathers significantly more often ate in response to worries or problems ($p=0.017$) and had poorer self-esteem compared to the daughters of older fathers ($p=0.0013$). The sons of fathers with higher education significantly more often pointed out slim figure as important ($p=0.0089$). Daughters of fathers with primary education often had low self-esteem compared to their friends ($p=0.014$).

Conclusions

1. The independent predictors of eating disorders father's age and education has been an important modifying factor. Children (especially daughters) of the young, uneducated fathers have more often shown abnormal behaviour and habits in nutrition, indicating anorexia.
2. Mother's age and education have not affected the eating disorders of their children.

460 ASSOCIATION BETWEEN OBESITY AND DEPRESSION IN EMIRATI ADOLESCENTS

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Background Overweight, obesity is rapidly increasing among children in United Arab Emirates (UAE). This study aimed to determine the prevalence of depression and its relation with obesity in adolescents.

Methods The study sample included 1018 adolescents (12–18 years) from a random sample of 8 schools out of 114 schools in Al Ain district of Abu Dhabi Emirate in UAE. We estimated self-reported symptoms of depression using the Arabic Beck's Depression Inventory (BDI). BMI $\geq 85^{\text{th}}$ and $\geq 95^{\text{th}}$ percentiles were used to define overweight and obesity according to the 2000 CDC growth charts.

Results The prevalence of depression according to the BDI (cut-off point: 19) was 10.7%. Girls were more likely (OR=3.97, 95%CI: 1.11–14.23) to have depression (12.2%) compared to boys (7.0%). A high proportion of adolescents (33.8%) were overweight and obese. There was a significant ($p=0.047$) correlation between overweight and obesity and depression after adjustment for gender, age, ethnicity and income level.

Conclusion There is disparity in prevalence of depression by gender. There is significant correlation between overweight, obesity and depression irrespective of age, gender, ethnicity and income.

461 RADIOLOGICAL ASSESSMENT OF CAPITAL REALIGNMENT SURGERY FOLLOWING SLIPPED CAPITAL FEMORAL EPIPHYSES (SCFE)

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Introduction The pinning in situ of slipped capital femoral epiphysis (SCFE) is the accepted gold standard treatment. However the resultant deformity from pinning of severe SCFE creates an altered femoral head-neck relationship. This contributing to femoroacetabular impingement and eventually the development of osteoarthroses.¹

The principal investigator has previously published on the use of two radiographic indices, alpha angle and displacement from Kleins line, surrogates of impingement, to evaluate the femoral head neck

relationship in mild to moderate grade severity SCFE's. treated by pinning in situ.²

Subcapital realignment surgery through surgical hip dislocation has been performed in moderate to severe SCFE in an attempt to restore femoral head neck geometry.³ We describe the use of the two previously recognised radiographic parameters in the setting of capital realignment for the treatment of severe SCFE.

Aims To assess the radiological outcomes; alpha angle, and displacement from Klein's line in patients having undergone capital realignment, compared with normative data.

Methods We retrospectively reviewed 11 patients (6 males, 5 females mean age 12.2 years with moderate to severe (1 moderate: 10 severe) SCFE having undergone capital realignment between 2009 and 2011.

Results Alpha angles restored to normal range in all patients. Klein's line offset was restored to positive displacement in 7 patients, with 3 patients noted to demonstrate a new radiographic finding termed pistol grip type deformity.

Discussion The radiographic parameters of alpha angle and Klein's line offset are useful in quantifying the restoration of proximal femoral anatomy following capital realignment.

462 CLASS III GYNecomASTIA IN PEDIATRIC AGE: A NEW MODIFIED SURGICAL TREATMENT

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Background Prepubertal gynecomastia is an extremely rare condition usually requiring surgical treatment, especially in case of class III gynecomastia. This study presents cases treated with a new surgical treatment.

Methods Five patients were treated at the Authors' Unit for class III gynecomastia between January 2010 and December 2011 using a modified technique of periareolar incision. Aesthetic results and possible complications of this technique were then observed.

Results All patients were properly treated without the need of further surgery for skin resection. One patient developed stroma, treated with suction; one patient showed hematoma, treated with hot packs for 3 weeks. All patients and their parents were satisfied of the aesthetic results obtained. All patients resumed sport activities 4 weeks after surgery. It was not possible to observe intraoperative complications.

Conclusion The technique used meets safety and efficacy standards for the treatment of this type of pediatric gynecomastia. It also offers the best possible aesthetic results with minimum complications which can be treated without the need of further surgery.

463 ISOLATED TORSION OF INFUNDIBULUM OF THE RIGHT FALLOPIAN TUBE IN A 12-YEAR-OLD GIRL

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Introduction Isolated torsion of fallopian tube is a rare cause of acute abdominal pain. It can happen in different portions of the oviduct: in our patient a torsion at the level of the infundibulum occurred.

Case report A 12-year-old post-menarchal girl presented at our Pediatric Surgery Unit with a two days history of lower abdominal

pain on right side. Blood exams showed rise of CRP (19 mg/L) and normal WBC. An ultrasound performed in the A&E department was normal. Because of the persistence of pain, we repeated an ultrasound the day after that showed an anechogenic uniloculated 18 mm cyst at the level of the right ovary. The report was of functional follicular cyst.

After two days of observation and worsening of the symptoms, laparoscopy was performed: a necrosis of the fimbriae due to torsion at the right fallopian tube infundibulum was found. The ischaemic fimbriae were removed according to Kroener fimbriectomy. Hystological analysis described fimbriae characterized by oedema and vascular congestion.

Discussion Torsion of infundibulum could mimic a functional annessial cyst, with a normal echogenic appearance, while a torsion of the whole Fallopian tube can be more easily detected and suspected, avoiding delayed treatment. In our case, to base the management on clinical symptoms was mandatory.

Conclusions Isolated torsion of infundibulum of Fallopian tube is a challenging diagnosis. It should be considered in case of acute lower abdominal pain in young girls. Early laparoscopy seems to be the best approach for diagnosis and treatment.

464 OSTEOLYTIC LESIONS OF THE CALCANEUS IN PAEDIATRIC PATIENTS: RESULTS FROM A MULTICENTER STUDY

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Tumours of the calcaneus are exceedingly rare. X-rays are the standard examination tool and therefore we wanted to evaluate if X-rays alone were sufficient for proper diagnosis. Diard's classification was applied to define whether different types of lesions were characteristically distributed in the bone and in addition we analyzed whether type and/or duration of symptoms were possible indicators of malignancy.

Sixteen patients (12 male, 4 female; mean age 15 years, range 8 to 20) were identified. The definitive diagnosis was simple bone cyst (n=10), aneurysmatic bone cyst (n=3), intraosseous lipoma (n=1) and Ewing's Sarcoma (n=2). Parameters analyzed were type and duration of symptoms, tentative diagnosis, operative procedure, recurrence rate, revision and localization of the lesion according to Diard.

The main current complain was of pain without prior history of trauma in twelve cases. Symptoms preceded the definitive diagnosis for a mean time of seven (range 1 to 26) months. Discrepancies of the radiological and definitive diagnosis occurred in four of 16 cases. Applying Diard's system trabecular area number 6 was affected in 14 of 16 cases. We did not observe local recurrence for benign lesions.

In each case of an osteolytic lesion of the calcaneus a malignant tumor must be ruled out and thus, plain X-rays in two planes alone are not sufficient and should therefore be followed by MRI. Applying the Diard system different types of lesions are not characteristically distributed in the bone. Increasing pain without previous trauma should always justify further examinations.

465 PREMENSTRUAL SYNDROME IN ADOLESCENTS OF ANAND - CROSS-SECTIONAL STUDY FROM INDIA USING PREMENSTRUAL SYMPTOMS SCREENING TOOL FOR ADOLESCENTS (PSST-A)

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Background and Aims Premenstrual syndrome (PMS) disrupts lives of girls who otherwise would lead more productive lives. We assessed prevalence and severity of PMS in adolescents of Anand, a small town in western India and identified probable associations with age, locality, food habits, obesity, stress, genetic influence, menorrhagia and dysmenorrhoea.

Methods Cross sectional observational study in which Premenstrual Symptoms Screening Tool for Adolescents (PSST-A) questionnaire was self-administered to screen PMS and Premenstrual Dysphoric Disorder (PMDD). 1355 girls of Gujarati ethnicity in age group 10 to 23 years with regular menstrual cycles participated. Obesity was assessed through Body Mass Index. Results were examined for associations that could indicate effect of lifestyle on PMS/PMDD.

Results The prevalence of moderate to severe PMS was 17.3% and PMDD was 4.7%. 95.0% girls had at least one PMS symptom, 68.8% had at least one moderate to severe PMS symptom, 49.9% had one or more physical symptoms and 89.8% had more than one PMS symptom. 37.1% had disruption of daily activities while 24.2% remained absent from school/college due to PMS. 75.4% girls felt that PMS was a normal part of menstruation and 50.0% reported moderate to severe stress. 21.4% had physical symptoms every menstrual cycle. Age, weight, BMI, stress level, dysmenorrhoea and menorrhagia contribute significantly to PMS, whereas menorrhagia, stress level and junk food contribute significantly to PMDD.

Conclusion Prevalence of moderate to severe PMS and PMDD in this population is higher than reported elsewhere. PMS interferes with day to day life significantly.

466 SOCIAL INEQUALITIES IN ADOLESCENT HEALTH

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Objectives To investigate how socioeconomic indicators and individual variables from woman, pregnancy and delivery, can interact to influence rates of adolescent pregnancy in South Brazil.

Methods Information from the Live Birth National Information System (SINASC), concerning 419,272 deliveries taking place in the State of Santa Catarina, South Brazil, from 2003 to 2007 were analysed. The study combined ecological and cross-sectional methods of data collection and analysis. Correlations between socioeconomic indicators and rates of adolescent pregnancy were obtained. Annual rates and crude and adjusted rates, using Cox Regression, were calculated for literacy, ethnicity, duration of pregnancy and frequency to antenatal care consultations.

Results Rates of adolescent pregnancy for the 293 states of Santa Catarina in the study period was 18.26% decreasing linearly from 2003 to 2007, as a result of a decreasing in rates among women from the higher socioeconomic strata. Rates showed to be inversely associated to socioeconomic and demographic indicators. Negative correlations were found for the Human Development Index, Educational Development Index, literacy, and income Rate. The categories with higher proportions of adolescent mothers were low level of literacy, lower frequency to antenatal care, lower gestational age and non-white ethnicity. For extremes in the period the Prevalence Ratios increased for low literacy, lower frequency to antenatal care, and for non-white women.

Conclusions Adolescent pregnancy in Brazil is an important Public Health problem with socioeconomic determinants, whose effects will impact mainly those women living in the less privileged groups.