

## 20 years single tertiary centre experience of medical and surgical management of pediatric perianal Crohn's disease

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**Objectives and Study:** Perianal Crohn's disease (PCD) is defined as inflammatory changes around the anus, including tags, fissures, fistulae, abscesses or stenosis. There is no consensus of the exact classification of the fistulae or in their medical and surgical management. In this study, we reviewed characteristics of our cohort of pediatric Crohn's perianal disease and perianal fistulizing disease (CDPAF) including their management and long term outcomes.

**Methods:** A retrospective study conducted in one of UK's major tertiary pediatric gastroenterology and surgical unit. Patients were identified using medical coding and relevant information collected using hospital inpatient records, clinic letters and hospital electronic patient record database system. We collected data for the period of 1994 to 2010 for perianal disease and from 2010 to 2016 with focus on perianal fistulizing disease.

**Results:** Study period (1994-2010): total of 59 PCD cases were identified out of which Male: Female ratio is 1.5:1. Age at diagnosis of PCD ranges from 2-16 years with a mean age of 11 years. Most common perianal lesion was fissure (n=35), followed by abscess (n=24), fistula and skin tag (each n=19) and anal stenosis the least with 5 cases. In terms of initial surgical procedure, most common was abscess drainage (17), followed by examination under anesthesia (EUA) in 14 cases. Seton insertion was done in only 10 cases. We have noticed significant difference in medical management approach in pre and post diagnosis of PCD. Use of both azathioprine and mesalazine increased by approx. 8

fold (Azathioprine 44:6 and mesalazine 41:5). Use of Infliximab nearly doubled (7:4) and steroid use increased by 4 fold (31:8). Majority of cases (45) were started on exclusive enteral nutrition at initial diagnosis of CD. Adalimumab was prescribed in only two cases. On long term follow up nearly half of cases i.e. 29 out of 59 cases required major bowel surgery including hemicolectomy, pan-proctocolectomy and stoma formation. Study period (2010-2016): we have identified n=24 cases of fistulizing disease. Male: female ratio is 2.4:1. Mean age at diagnosis of CD-PAF was 12.5 years. In terms of surgical procedure most common was EUA (21) followed by abscess drainage (18) and seton insertion done in 9 cases. Use of immunosuppressant (Azathioprine) doubled from n=12 to n=23 in pre-and post-fistula phase. Use of biologics (Infliximab, biosimilar, adalimumab) quadrupled from 5 to 20 in pre and post fistula phase. Clinical fistula healing in half of cases was partial healing i.e. 14 followed by complete healing in 6 and no healing in 4 cases.

**Conclusion:** Our study shows that diagnosis of PCD and CD-PAF lead to major changes in medical approach to treatment. Our unit has started using biologics from 2007 which is demonstrated by higher prescription of anti-TNFs in second study period. Significant proportion of fistulizing patient had partial or complete clinical and radiological healing. It is worth recognizing that irrespective of intensive combined medical and surgical input pediatric PCD carries risk of major bowel surgery which has huge implications in terms of morbidity and increased mortality from complications. There is huge

**variation in medical and surgical management even inter unit variation. There is need for further registry and interventional studies of combined medical and surgical approach to guide optimum future management.**

### **Biography**

Christos Tzivnikos is a Consultant Pediatric Gastroenterologist. He has completed his entire general and sub-speciality pediatric training in the UK in renowned tertiary hospitals in

London (King's College, St. George's, Royal London). He has completed his MSc with merit in Pediatric Gastroenterology at Queen Mary University London and Institute of Child Health at Great Ormond Street Hospital. He is an elected Fellow of the Royal College of Pediatrics and Child Health in the UK. Prior to joining Al Jalila Children's, he was the Chief of Pediatric Gastroenterology Division at Alder Hey Children's Hospital in Liverpool, one of the largest pediatric hospitals in Europe.

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