

O09 EXPOSURE TO DIAGNOSTIC IMAGING RADIATION IN CHILDREN UNDER 8 YEARS OLD WITH INFLAMMATORY BOWEL DISEASE

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Background: The diagnosis and management of inflammatory bowel disease (IBD) often involves ionizing radiation modalities such as computed tomography (CT) and contrast fluoroscopy. It has been shown that ionizing radiation exposure poses cancer risk. Younger children with IBD are believed to be particularly vulnerable. Objective: Quantify the number of ionizing imaging studies performed in an IBD population consisting of children age 8 years or younger.

Methods: Retrospective data review for 58 children diagnosed with IBD between 1998-2006. Mean age 5. years (11 months - 8 years). The follow up period was 1-9 years, median 5. 31 patients had Crohn's Disease, 21 Ulcerative Colitis and 6 IBD-Unclassified. 45 (77%) pts had at least 1 barium contrast study (range 1-5), 23 (40%) at least 1 CT (range 1-11), 14 (24%) had ≥ 3 CT/barium studies, range 2-16, median 5 studies per child. Mean estimate radiation dosage was 6. msv per patient. For patients with ≥ 3 studies, mean radiation dose estimate was 18 msv (range 7-48). Risks for increased radiation dose were Crohn's disease and surgery.

Conclusion: A subset of younger patients with IBD are at risk of significant imaging radiation exposure. Alternative radiation-free imaging modalities should be considered in young IBD patients, particularly when multiple studies are anticipated.