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**Background:** Genital granulomatosis (GG) is a extraintestinal form of Crohn's disease (CD), characterised by granulomatous inflammation of the genital skin without contact to the gastrointestinal tract. Little is known about GG as most publications are case reports or small series, and only sporadic in male cases.
**Methods:** Cases of GG were retrospectively collected through the Collaborative Network For Exceptionally Rare case reports project of the European Crohn´s and Colitis Organization. The aims of this study were to extensively describe GG in patients with CD, with particular attention to male cases and to provide data on the response to treatments in GG.
**Results:** Forty patients (9 males, 31 females) were diagnosed having GG in 21 centres, mostly as oedema and/or ulcers (95%). Histological confirmation of granulomas was obtained in 70% of the cases. CD location was colonic or ileocolonic in 97% and perianal disease was documented in 57%. There was no significant difference between males and females in CD phenotype and genital lesions. GG was the first manifestation of IBD in one third of the patients; these patients were younger at the time of GG occurrence and they all were non-smokers. GG occurred in the absence of gastrointestinal disease activity in 30% of the cases. After median follow-up period of 30 months (range, 9 to 154 months), clinical response to applied treatment was documented in all but one patient. In case of monotherapy as first-line treatment attempt 91% of the patients responded to systemic corticosteroid treatment, 56% of the patients responded to immunomodulators, and 81% of the patients responded to anti-TNFα agents. The best long-term response was observed on anti-TNFα therapy in 46% of the cases.
**Conclusions:** GG is a rare extraintestinal manifestation of CD, which can precede intestinal CD. It more frequently occurs in women, predominantly in the setting of colonic involvement of CD and perianal disease is often associated. Most cases are successfully managed with systemic corticosteroids or anti-TNFα agents.

## DOP Session 10: Microbes, food and cancer in IBD

### DOP082

### Potential diagnostic biomarkers of ulcerative colitis-associated colorectal dysplasia

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**Background:** In ulcerative colitis (UC), dysplasia can develop in areas that are or have been affected by chronic inflammation and are identified as Dysplasia Associated to Inflammation (DAI). Dysplasia may also develop independently of chronic inflammation and be defined as Sporadic Dysplasia (DSp). Anatomopathological diagnosis of DAI remains difficult, especially when tissue inflammation is present, as mucosal regenerative remodelling impairs dysplasia confirmation. The aim of this study is to highlight specific proteins of UC-DAI.
**Methods:** We performed a study on Formalin-Fixed Paraffin-Embedded (FFPE) samples from UC-DAI ($n$ = 5). To compare the proteomes of dysplastic (DAI), inflammatory (I) and normal (NL) paired tissues, we collected epithelial cells by Laser Capture Microdissection (LCM) before differential analysis using label free proteomics. Confirmation of tissue distribution of one selected protein differentially distributed between DAI and I or NL was done by Immunohistochemistry (IHC) on UC-DAI ($n$ = 11). Colonic tissues of a colitis-associated cancer mouse model (AOM/DSS) (Thaker Al *et al*. J Vis Exp 2012) were evaluated by IHC encompassing low-grade dysplasia (LGD, $n$ = 39), high-grade dysplasia (HGD, $n$ = 12), adenocarcinoma (ADC, $n$ = 6), I ($n$ = 30) and NL ($n$ = 6) tissues.
**Results:** Proteomic analysis enabled confident identification of 1070 proteins. Nineteen proteins showed differential abundance between DAI and I or NL, among which Solute Carrier Family 12 member 2 (SLC12A2) that was only detected in DAI. SLC12A2 IHC on UC cases confirmed significantly different distributions with DAI>I ($p$ = 0.0001 for bordering epithelium and $p$ = 0.002 for crypts epithelia) and DAI>NL ($p$ < 0.0001 for bordering epithelium and $p$ = 0.001 for crypts epithelia). In the AOM/DSS model, SLC12A2 was significantly increased in dysplasia and ADC compared with I and NL tissues (LGD >I with $p$ < 0.0001, LGD >NL with $p$ = 0.004, HGD > I with $p$ < 0.0001, HGD >NL with $p$ = 0.007, ADC > I with $p$ = 0.0002 and ADC>NL with $p$ = 0.009). SLC12A2 was significantly higher in advanced lesions (HGD>LGD with $p$ = 0.012 and ADC>LGD with $p$ = 0.038).
**Conclusions:** SLC12A2 could be a potential marker of DAI in UC as being able to identify dysplasia from surrounding tissues with inflammation. It requires proper validation to evaluate its power as a specific IHC marker that could be used to clarify difficult cases diagnosed as "indefinite for dysplasia".

### DOP083

### The association of appendectomy and colorectal cancer in ulcerative colitis patients: a systematic review and meta-analysis

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**Background:** Appendectomy is a protective factor for developing ulcerative colitis (UC), and is suggested to have a beneficial effect on the clinical course of the disease. However, recent studies showed no decreased colectomy rate with an increased risk of colorectal cancer (CRC), questioning if ongoing trials should continue. We aimed to investigate the suggested correlation in a meta-analysis, and analyse possible confounding factors.
**Methods:** A systematic review and meta-analysis were performed using MEDLINE, EMBASE and the Cochrane library on 10 July