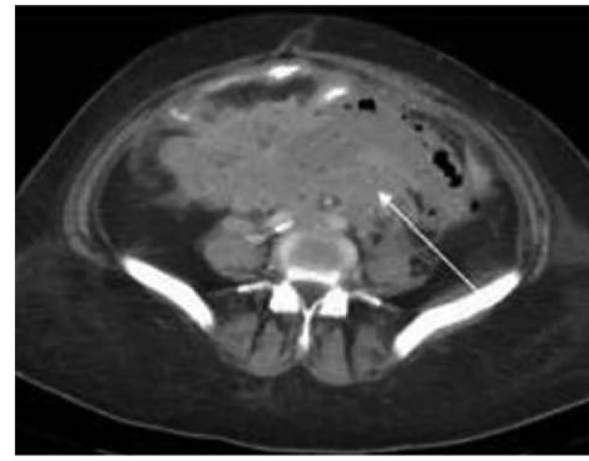

Abstract ID: 50 Figure 1

ID: 50 **PERFORATED DIVERTICULOSIS COMPLICATED WITH ACTINOMYCOSIS INFECTION AND PRESENTED AS PELVIC MALIGNANCY**

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Case Presentation A 48-year-old female with no significant past medical history who presented with fatigue, and lower abdominal pain, unintentionally weight lost and yellowish vaginal discharge. Physical examination was remarkable for a palpable mass extending from supra-pubic to supra-umbilical area and vaginal examination remarkable for foul-smelling vaginal discharge. Initial laboratory studies indicated Hemoglobin 5.8 mg/dl and white blood counts 15,000/μL. Computerized tomography of Abdomen/Pelvis CT with contrast which demonstrating an infiltrative process or mass like structure involving the pelvis measuring 10×12×6 cm. The initial impression was Gynecological cancer which could be uterine/cervix/ovarian cancer. However, Pap-smear was negative. Biopsy was obtained which showed acute inflammatory exudates fragments of benign appearing smooth muscle proliferation and fibro-adipose tissue infiltrated with histiocytes. The decision for exploratory laparotomy was made which revealed a large pelvic abscess. The surgery resulted in modified radical hysterectomy, resection of left and right tubo-ovarian abscess complexes, recto-sigmoid resection with end-sigmoid colostomy and Hartmann's pouch, and ileo-colic resection with a primary anastomosis. Pathology examination revealed a segment of colon with perforated diverticulosis and a tubo-ovarian complex with acute and chronic inflammations, granulation tissue formation and bacterial colonies morphologically suggestive of *Actinomyces*. Patient started on Intra-venous Penicillin-G. After 4 weeks, CT abdomen/Pelvic repeated which showed post-surgical changes and decreased in size of abscess/fluid collections.

Discussion Actinomycosis is a rare and insidious disease. The most common etiologic organism is the anaerobic, Gram-positive bacterium, *Actinomyces israelii*. Actinomycetes are prominent among the normal flora of the oral cavity but less prominent in the lower gastrointestinal and female genital tract. Because these microorganisms are not virulent, they require a break in the integrity of the mucous membranes and the presence of devitalized tissue to invade deeper body structures and to cause human illness.

Cervicofacial actinomycosis is the most common type of the infections followed by Thoracic actinomycosis and less common in abdomen and pelvis. The most common cause of abdominal/pelvic actinomycosis is acute perforated appendicitis. Also, most of Abdomen/Pelvis cases have a history of recent or remote bowel surgery (e.g.perforated appendicitis, perforate colonic diverticulitis). Pelvic actinomycosis has become more common in females who use an Intra-Uterine Devices, which may increase the risk of infection through injury to the normal uterine mucosa. Diagnosis of Abdomen/Pelvic actinomycosis is usually established postoperatively, following exploratory laparotomy for a suspected malignancy. Involvement of any abdominal organ, including the abdominal wall, can occur by direct spread, with eventual formation of draining sinuses.