A PELVIC MASS: INFECTION OR TUMOR? 
Differentialdiagnosis using histological findings 
A case report 

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Case Report:
A 52 year old woman was referred with lower abdominal pain and progressive pelvic organ prolapse (POP) Stage 3 (ICS-POPQ-Staging). She had three vaginal births and used a copper intrauterine contraceptive device (IUD). After discussing various methods of treatment with the patient, she decided on an operative treatment. Until then, a therapeutic pessary was recommended. Although this pain was initially interpreted as a symptom of the POP, there was no relief through the therapeutic pessary. She was re-referred for immediate operative therapy.

Preoperative blood tests showed an anaemia (Haemoglobin 78g/l), high CRP-values and a leucocytosis (CRP 200mg/l, WBC 18000). Ultrasound findings showed an enlarged uterus (93mm) and a cyst (50mm) in the left adnexa. Former ultrasound findings were normal. Results of a CT-Scan confirmed an inhomogeneous, highly contrasted uterus, a multi-cystic, solid mass in the lesser pelvis and hydronephrosis Grade II-III on both sides. These lead to a strong suspicion of an ovarian carcinoma. An external Pap-smear carried out earlier in the year showed Pap II and Actinomyces-like bacteria. As a probable cause of the persistent pain and the pelvic mass an infectious origin was postulated and an iv antibiotic therapy (Amoxicillin/Clavulinate) was administered.

Unclear findings of body-images lead to an explorative laparoscopy with perioperative insertion of a double-J-Catheter. Massive Adhesions in the abdomen caused a conversion to laparotomy surgery. The pelvic mass behaved like a malignant tumor invading the surrounding and caused necrosis, thus a hysterectomy, a bilateral adnexectomy and an intraoperative frozen section was carried out. The result of the frozen section showed a florid infection of the tissue with typical glands for an actinomycosis. No malignant cells were found. Postoperative the abdominal pain disappeared. In accordance to the bacterial sensitivity a sole therapy with Penicillin was administered. A control-CT scan showed no pathological findings or ruminants of the actinomycosis.

Conclusion:
Pelvic actinomycosis associated with the use of IUDs can mimic pelvic malignancy similar to this case report. Laboratory abnormalities may show anaemia and leucocytosis. A high index of suspicion is required in as a differential diagnosis with intrauterine device that present with constitutional or nonspecific abdominal symptoms and an abdominal mass.