

# Sister Mary Joseph Nodule

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## Citation

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## Abstract

A 76 year old woman presented with abdominal distension and fatigue of one months duration. Examination revealed cachexia, ascites and a firm ulcerated nodule palpable over the umbilicus. CT scan showed several cystic pelvic masses in association with liver, splenic, para-aortic and omental tumors. Ascitic fluid cytology confirmed poorly differentiated adenocarcinoma of the ovary. The umbilical nodule is called Sister Mary Joseph Nodule. It is associated with intra abdominal and pelvic malignancies. Its finding portends a poor prognosis.

Dear editor,

We report the case of a 76 year-old woman who presented to the emergency department with a month long history of progressive abdominal distension and fatigue. Her medical history was notable for Parkinson's disease which was controlled on medications. Physical examination revealed a cachectic female with ascites, peripheral edema and a firm indurated, ulcerated 8 centimeter subcutaneous umbilical nodule, (Figure 1).

## Figure 1

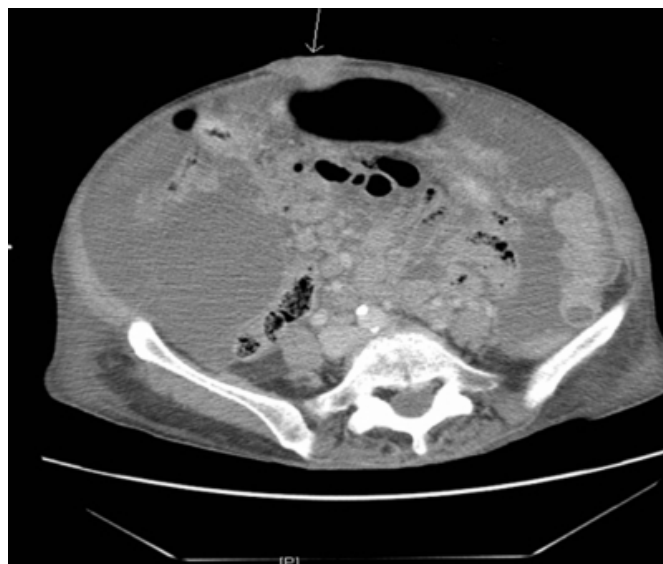
Figure 1



A CT scan of the abdomen revealed ascites and several cystic pelvic masses (tumors) consistent ovarian carcinoma with metastases to the peritoneum, omentum, liver, spleen and para-aortic lymph nodes. Notably there was an umbilical subcutaneous nodule visible on the scans(Figure 2).

## Figure 2

Figure 2



3400 ml of ascitic fluid was drained from her peritoneal cavity. Microscopy revealed poorly differentiated adenocarcinoma with scattered psammoma bodies throughout the tissue fragments consistent with a gynecologic malignancy. CA-125 was elevated at 36861 Units/millimeter (normal <20.9 U/ml).

The finding of a hard subcutaneous nodule at the umbilicus secondary to metastatic carcinoma is referred to as Sister Mary Joseph's Nodule. The sign was noticed by a Franciscan nun, after whom it is named. Sister Mary Joseph worked as a surgical assistant to William J Mayo. However it was not until 1949, 10 years after her death that Sir Hamilton Bailey used the term in his textbook *Physical Signs in Clinical Surgery* 1. This sign often due to metastatic intra-abdominal

malignancy signals advanced disease with a poor prognosis. Average survival after discovery is about 10 to 11 months 2. The most common malignancies associated with a Sister Mary Joseph Nodule are adenocarcinoma of the stomach, colon, pancreas and ovary 3. Spread to the umbilicus is thought to occur via lymphatic, vascular and defunct embryological connections. This case highlights the continued importance of physical examination findings in determining patient diagnosis and prognosis.

### **References**

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