Breast Fibromatosis: Are they all created equal?
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INTRODUCTION
• Fibromatosis of the breast is a rare, benign tumor, lacking metastatic potential, but can be aggressive and lead to failure of loco-regional control if not adequately treated
• The consensus on treatment remains wide local excision, however, other therapies have been described
• Fibromatosis has been well documented in previous surgical scars of young women especially around pregnancy however the etiology of breast fibromatosis has not been well established
• APC/B-catenin pathway defects have been linked to fibromatosis
• No sub-classification has been previously described for this rare disease.

OBJECTIVES
• To characterize a series of patients with primary and secondary fibromatosis of the breast after prior surgery and/or radiation
• To determine and define classification of primary and secondary breast fibromatosis

METHODS
• Chart review of all patients with breast fibromatosis at a single institution (University of Miami and Jackson Health System) from 2003-2017
• Collection of demographics, presentation, prior treatments (surgery or radiation), therapeutic course and outcome
• Primary fibromatosis: presentation in a patient who had not undergone surgery or radiation to her breast
• Secondary Fibromatosis: history of prior breast surgery or radiation in the ipsilateral breast

RESULTS
Sixteen cases: with average follow-up time of 65 months
• Fourteen of the sixteen patients were treated surgically with wide local excision
  • Lumpectomy (8) or mastectomy (1)
  • mastectomy/lumpectomy with chest wall excision including ribs (2)
  • Chest wall excision after prior mastectomy/implant (3)
• Eight patients had positive margins on initial resection and required re-excision
  • Often misdiagnosed on initial core biopsy with a myofibroblastoma or spindle cell lesion
• There were two patients that had a recurrence
  • First: lumpectomy and recurred in 1.5 years
    • Then: Second lumpectomy with partial resection of the left pectoral muscle and rib periosteum
    • Recurred again 2 years later (3.5 years from initial presentation) and treated with radical mastectomy
  • Second: managed initially with a lumpectomy and recurred 2 years later and had a re-excision
• Nine had previous history of surgery which would support a diagnosis of secondary fibromatosis
  • XRT: (4) Breast cancer related; (1) cosmetic

CONCLUSIONS
• When approaching a patient with fibromatosis, it is important to differentiate between primary and secondary causes
• Secondary breast fibromatosis may be hard to diagnose, as it is often mistaken for surgical scars or other benign pathologies
• It is often more aggressive then primary fibromatosis which is related to genetic defects in the APC/ B-catenin pathway
• It often develops on the chest wall or around the capsule of implants
• And when managed inappropriately, it will recur
• During diagnostic workup, imaging with CT scan or MRI is important to help determine the extend of disease
• We advocate an aggressive surgical treatment for this disease process with 1 cm margins
  • Intraoperative imaging modalities can also assist us in resecting these lesions completely (i.e. US)
• Close follow-up is important, especially for the first three years when recurrence risk is the highest
• Secondary fibromatosis can be insidious and is often misdiagnosed
• Vigilance for this disease process is crucial in avoiding missing this tumor in patients with prior surgeries and radiation

REFERENCES