

# Prediction of unfavourable pediatric breast masses and management recommendations



**Osnat Zmora**

Shamir Medical center, Zerifin Israel

## Biography

Osnat Zmora is Senior Surgeon, Acting Vice chair, department of Pediatric Surgery, Tel-Aviv Sourasky Medical Center, Tel-Aviv, Israel. And also Chair person, department of Pediatric Surgery, Shamir Medical center, Zerifin, Israel.

## Abstract

**Background:** Children and adolescents with breast masses are often cared for by either adult breast surgeons with limited experience with the pediatric population or by pediatric surgeons with limited experience with breast pathologies. There are no specific guidelines for management of pediatric breast masses, and therefore, many surgeons follow adult guidelines and recommend core needle biopsies for pediatric breast masses.

**Aim:** Our aim was to describe pediatric breast masses which were resected and to identify factors which might predict an unfavourable histology in order to provide guidance to surgeons for the management of breast masses in children.

**Methods:** A retrospective chart review of all cases of resected breast masses in female pediatric patients between 1999 and 2018. Variables which were collected were: demographic, family history, mass number, size and laterality per clinical examination and per US, management including pre-surgical follow up and pre-surgical core needle biopsy, and pathological diagnosis following resection.

**Results:** During a period of 19 years, 70 female pediatric patients underwent primary resection of breast masses. In 9 cases (13%) pathology was unfavourable with 7 cases of benign phyllodes, one case of malignant phyllodes and one case of sarcoma. Median size of resected masses was 4 cm. We did not find any statistically significant association between any of the collected parameters and unfavourable histology. The concordance of core needle biopsy results and final pathology was poor (64%).

**Conclusions:** Resected breast masses in children have sometimes an unfavourable histology, which cannot be predicted based on patient age, family history, size/side/number of masses and results of core needle biopsy. We recommend up front resection of any mass larger than 3 cm with a possible short course of tight follow up prior to resection.