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## 28602 – INFILTRATING BREAST CANCER OF THE CAPSULE OF A BREAST IMPLANT: A CASE REPORT AND LITERATURE REVIEW

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**Introduction:** Breast cancer is the most incident malignant neoplasm among the female population worldwide. In Brazil, breast cancer is the second most common among women after non-melanoma skin cancer. An estimated 74,000 new cases are expected annually until 2025. There has been a rising trend in breast augmentation surgeries with implants, according to American statistics; consequently, the number of women with breast cancer in this context is also increasing. Although there is no association between breast implants and an increased risk of developing cancer, the introduction of silicone implants leads to the formation of a capsule around the implant. This capsule results from the immune inflammatory response to the foreign body, consisting of multiple layers of collagen and inflammatory cells. The presence of vascularized tissue within the capsule may explain the unusual occurrence of cancer within or adjacent to the capsule. The scope of this article is to report an atypical case of breast cancer involving the implant capsule, due to the scarcity of studies in the literature on this subject. **Methodology:** The study design is descriptive, aiming to report a clinical case. Data were obtained from medical records, allowing for the collection of sociodemographic, clinical, pathological, and treatment information in patients with breast cancer adjacent to or infiltrating the silicone implant capsule. The study was approved by the Ethics Committee of the Institute via the Brazilian Platform (Plataforma Brasil), with the Certificate of Presentation for Ethical Review (CAAE) number 57203622.0.0000.5662. **Conclusion:** Given the high number of breast augmentation surgeries with implants, there is also an increase in the proportion of women with breast cancer in this context. Although there is no association between implants and an increased risk of developing breast cancer, the presence of vascularized tissue within the implant capsule may explain the uncommon occurrence of cancer within or adjacent to the capsule. For women with breast augmentation and a diagnosis of breast cancer, it is advisable to consider assessing the extent of the disease using breast MRI.