



## **Acute Breast Enlargement In A Pregnant Patient With Breast Implants: Alcl Or Not?**

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Background:

The incidence of seroma in the immediate postoperative period averages around 0.1% for aesthetic breast augmentation. Late seroma formation is an extremely rare complication. Late seroma formation has been reported up to 22 years after breast surgery with implants. Spontaneous seroma in the context of breast implants should be evaluated, raising the suspicion of breast implant–associated Anaplastic Large Cell Lymphoma (ALCL) . We present a case suspicious of ALCL in a high-risk pregnancy patient.

Methods:

We present a case of a 33 year-old pregnant woman with an acute enlarged left breast, in the absence of any history of trauma or procedures. She had undergone bilateral breast augmentation with textured implants fifteen years prior to evaluation. In addition, she was followed by her obstetrician for a high-risk pregnancy due to a history of intracranial Arteriovenous Malformations (AVM). Ultrasound revealed peri-prosthetic fluid collection, in keeping with a seroma. The patient’s presentation of a late spontaneous seroma after breast implants was very suspicious for Breast Implant–associated Anaplastic Large Cell Lymphoma (BIA-ALCL). We present the work-up, cytology, microbiology and management of a late acute spontaneous breast seroma formation during a high-risk pregnancy.

Results:

The formation of late seroma is quite uncommon post breast augmentation and should raise the suspicion for ALCL. Late seroma formation following prosthetic breast augmentation is a classically described finding of breast implant-associated ALCL<sup>8</sup>. In this particular patient, ALK-1/CD30 cytology of both the aspirate and capsule did not show evidence of ALCL. Her symptoms were likely the result of a late subclinical infection with *Staphylococcus aureus*. The incidence of late postoperative breast implants infections is around 0.8 %. The microorganisms most commonly responsible for breast infections is coagulase-negative staphylococci. Late cases of breast infection secondary to procedural instrumentation have been described in the literature. In our case, cultures grew *Staphylococcus aureus* from an unknown source, a rare cause of breast infection presumed to be secondary to hematological seeding. The clinical similarity between this subclinical infection and reported cases of ALCL is not surprising.

Chronic bacterial biofilm infection has recently been linked to the genesis of breast implant-associated ALCL. Future research is necessary to help us understand the spectrum of presentations and the relationship between bacterial infections and ALCL.

Conclusions:

Late spontaneous seromas post breast augmentation should raise the immediate suspicion for breast implant-associated ALCL. We present a rare case of late breast swelling in a high-risk pregnancy, suspicious for ALCL. Immediate action and a multidisciplinary approach are crucial in managing similar cases.

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