AMERICAN SOCIETY OF PLASTIC SURGEONS

Quality & Registries

Breast Implant Associated Anaplastic Large Cell Lymphoma (BIA-ALCL)

By the numbers, and what they mean

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On March 21, 2017, the U.S. Food and Drug Administration (FDA) released a safety communication updating the current understanding of BIA-ALCL. ASPS and ASPAS released joint response, but many members have expressed confusion over much of the data surrounding BIA-ALCL. The purpose of this document is to discuss and bring clarity to some of the figures surrounding this rare disease.

359

The recent BIA-ALCL update reported that the FDA has been made aware of 359 medical device reports (MDRs) related to breast implants and ALCL. This is in comparison to 258 MDRs in January 2016 and 64 MDRs in January 2011. MDRs may be reported by patients, physicians or manufacturers. It's important to note the MDRs are not individual cases, as there are duplicate reports as well as unconfirmed cases suspicious for ALCL within the MDRs. The FDA describes the MDRs in its MAUDE database as "unconfirmed, inaccurate and biased" and, therefore, this data should not be taken as the definitive number of cases.

28

The recent FDA update of 359 patients included 28 (7 percent) smooth implant reports. This is similar to last year's update of 258 patients which included 11 (4 percent) smooth implant reports. However, none of these reports have a detailed clinical implant history and are, therefore, still unreliable as a smooth case. To date, no purely smooth-implant case of BIA-ALCL has ever been reported in any series with a detailed history. The FDA confirmed that BIA-ALCL is predominantly a texturing issue.

9

The FDA reports 9 deaths reported in the MDRs. These are part of the 12 known deaths worldwide from BIA-ALCL. Two patients died from stem cell transplants, one died from development of a second unrelated lymphoma, and 9 patients died from direct extension of the cancer into their chest wall, ultimately expiring from respiratory failure. Of these deaths, none received complete surgical excision at any point in the patient's clinical history, none received targeted therapy, and most were significantly delayed in diagnosis or receiving any treatment (1-2 years from onset of symptoms).

126

126 confirmed unique patients have been reported to the PROFILE registry (**www.thepsf.org/PROFILE**). The PROFILE registry is a joint collaboration between the FDA and ASPS to prospectively track BIA-ALCL patients.

1:30,000

The current lifetime risk of BIA-ALCL in the U.S. is estimated to be 1:30,000 women with textured implants based upon current confirmed cases and textured implant sales data over the past two decades. This is consistent with risk reported in Europe. Certain geographic locations have demonstrated variable risks. For instance, a December 2016 update from the Therapeutic Goods Administration of Australia and New Zealand reported a risk of 1:1,000 to 1:10,000 for textured implants. In contrast, there are no Asian BIA-ALCL patients either within Southeast Asia or within the U.S. of Asian descent. These discrepancies may represent variable reporting or may represent geographic and genetic predisposition which is under investigation.

139

There are currently 139 individual case reports or case series of patients in the literature.

1400

There are 1,400 patients per year diagnosed with ALCL. ALCL is a family of diseases from the very aggressive systemic ALCL to the indolent lymphoproliferative disorder primary cutaneous ALCL. For the first time in 2016, the World Health Organization added BIA-ALCL as a provisionally recognized lymphoma to the family of existing ALCL. It is important to differentiate BIA-ALCL from primary lymphoma of the breast which is predominantly a B-cell lymphoma with an incidence of approximately 1:4 million.

12.7

Approximately 550,000 total breast implants are placed per year in the U.S. Of these, approximately 70,000 textured breast implants are placed, representing 12.7 percent of the market.

93

93 percent of patients are disease free at 3 years follow-up, which is an excellent prognosis when treated appropriately. The National Comprehensive Cancer Network defines optimal treatment which is total capsulectomy and implant removal for the majority of patients with disease confined to the capsule (35 percent of patients) or a resectable mass (40 percent of patients). Advanced disease with lymph node metastasis (14 percent of patients) or organ metastasis (1 percent of patients) may require further treatment with chemotherapy using either CHOP anthracycline based-protocol or targeted therapy with brentuximab vedotin. Radiation therapy is only reserved for local unresectable disease such as into the chest wall and mediastinum.

30

For a suspected patient with a delayed seroma (>1 year), fluid should be aspirated and sent for CD30 immunohistochemistry, cytology, and flow cytometry. CD30 is the main diagnostic test that must be performed on the seroma fluid as routine pathology or H&E staining can frequently miss the diagnosis.

BIA-ALCL RESOURCES FOR PHYSICIANS

- **ASPS/ASAPS Joint Advisory: FDA Updates Website On BIA-ALCL**
- **BIA-ALCL Summary and Quick Facts**
- **BIA-ALCL Frequently Asked Questions**
- **BIA-ALCL By The Numbers**
- **Joint ASPS & ASAPS Statement on Breast Implant-Associated ALCL**
- **Position Statement: Breast Implant Specimens and Pathology**
- **PROFILE: Investigating Breast Implant-Associated ALCL**
- **ASPS Statement on Breast Implant Specimens and Pathology**
- **BIA-ALCL NCCN Guidelines (Free Registration)**