

Breast Implant Associated Anaplastic Large Cell Lymphoma: A Prospective Series of 52 Patients

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BACKGROUND: Breast implant associated anaplastic large cell lymphoma (breast implant ALCL) is an uncommon T cell lymphoma which is associated with textured surface breast implants. The disease has received increasing attention over the last 20 years. Prior retrospective studies have begun to outline the clinical course of breast implant ALCL.

METHODS: We prospectively followed women with cytologically proven breast implant ALCL from 2014 to 2019. Demographic, clinical, treatment, and outcome data were collected and descriptive statistics were performed on variables of interest.

RESULTS

Pathologic Stage and Patient Outcomes

	N = 52 n (%)
Stage	
IA	16 (30.8)
IB	4 (7.7)
IC	3 (5.8)
IIA	13 (25)
IIB	2 (3.8)
III	12 (23.1)
IV	2 (3.8)
Post-operative Complications	
Hematoma	0 (0)
Surgical Site Infection	0 (0)
Benign seroma	1 (1.9)
Pneumothorax	1 (1.9)
Reoperation	0 (0)
Distant Recurrence	0 (0)
Locoregional Recurrence	2 (3.8)

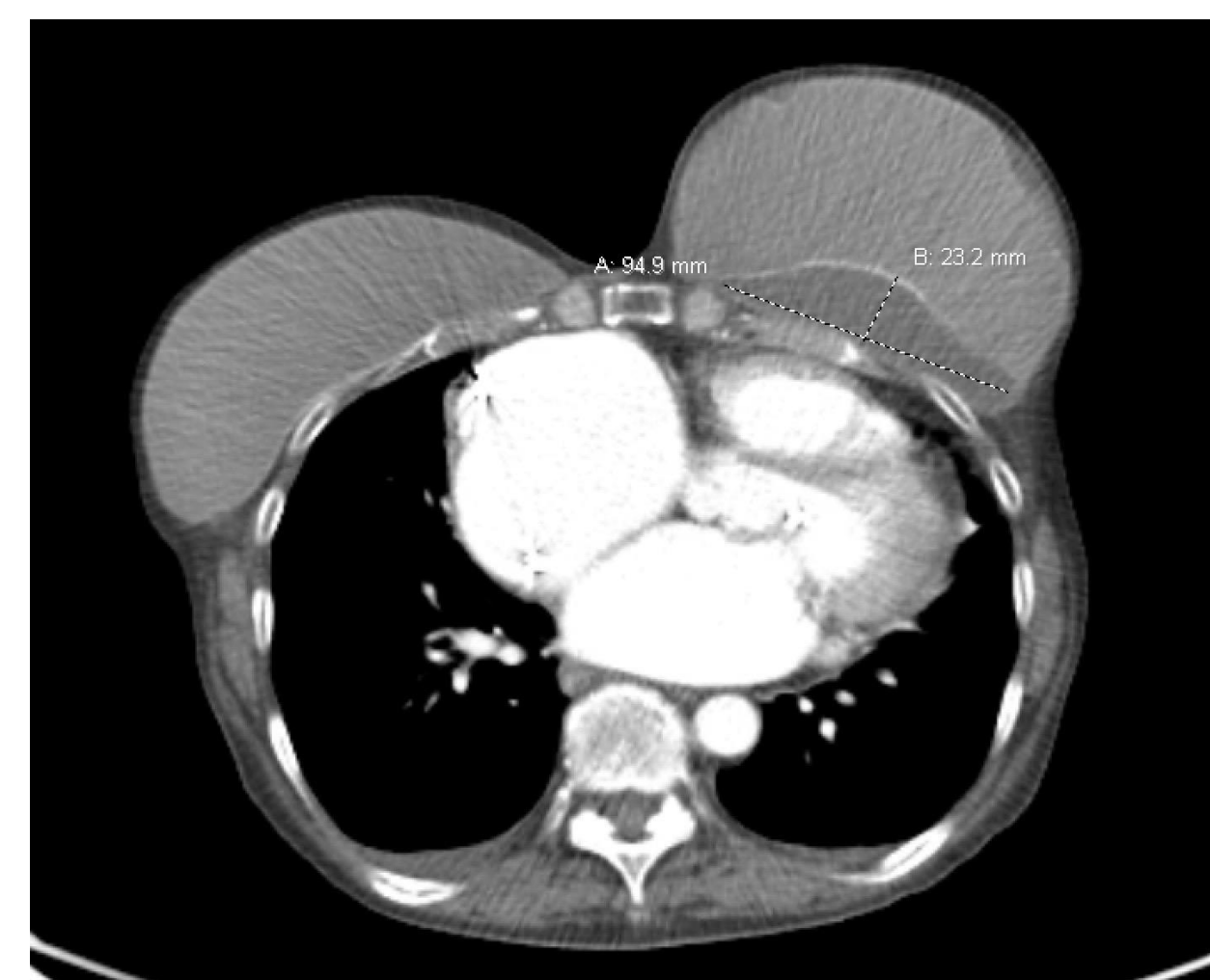


Figure 1: Patient is a 76-year old female who is who is fourteen years status post bilateral mastectomy for breast cancer with McGhan Biocell (Allergan Corporation) textured surface implants. She presented with a with a 400ml periprosthetic effusion of the left breast as demonstrated on preoperative CT-scan.

Most BIA-ALCL patients presented with Stage I or II disease and outcomes were excellent.

Distant Recurrence 0%

Local Recurrence 2%

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Table 1: BIA ALCL Patient Characteristics

	N = 52 n (%)
Age (years)	
Mean	52.4 years
Range	35-76 years
Prior Breast Cancer	
Yes	16 (30.8)
No	36 (69.2)
Prior Lymphoma	
Yes	3 (5.8)
No	49 (94.2)
Affected Breast	
Right	25 (48.1)
Left	26 (50.0)
Bilateral	1 (1.9)
Indication for Implant	
Augmentation	32 (61.5)
Reconstruction	19 (36.5)
Not reported	1 (1.9)
Implant Brand	
Allergan	40 (76.9)
Mentor	3 (5.8)
Silmed PU	1 (1.9)
Bioplasty	1 (1.9)
Mixed/Other	7 (13.5)
Implant Filler	
Saline	14 (26.9)
Silicone	34 (65.4)
Not reported	4 (7.7)
Placement of Affected Implant	
Subglandular	31 (59.6)
Submuscular	2 (3.8)
Not reported	19 (36.5)
Surface	
Smooth	0 (0)
Textured	52 (100)
Covering	
Silicone	39 (75.0)
Polyurethane	0 (0)
Not reported	13 (25.0)
Fat Grafting	
Yes	1 (1.9)
No	45 (86.5)
Not reported	6 (11.5)
Implant Rupture	
Yes	3 (5.8)
No	48 (92.3)
Not reported	1 (1.9)

Table 2: Diagnosis and Management of BIA ALCL Patients

	N = 52 n (%)
Presenting Symptoms*	
Breast skin lesion (Rash)	1 (1.9)
Capsular contracture	11 (21.2)
Erythema	3 (5.8)
Pain	7 (13.5)
Palpable mass	6 (11.5)
Seroma	36 (69.2)
Systemic Symptoms	
Yes (Fever/Night sweats)	5 (9.6)
No	45 (86.5)
Not reported	2 (3.8)
Time from Symptoms to Diagnosis	
Mean	15 months
Range	0-264 months
Time from Implant to Diagnosis	
Mean	119 months
Range	2-324 months
Diagnosis	
Pre-operatively	28 (53.8)
At surgery or time of final pathology	21 (40.4)
Unknown	3 (5.8)
Surgical Removal of Affected Implant	
Yes	51 (98.1)
No	1 (1.9)
Surgical Removal of Contralateral Implant	
Yes	42 (80.8)
No	4 (7.7)
Not reported	6 (11.5)
Radiation Therapy	
Yes	10 (19.2)
No	40 (76.9)
Unknown	2 (3.8)
Chemotherapy	
Yes	21 (40.4)
No	30 (57.7)
Unknown	1 (1.9)
Stem Cell Transplant	
Yes	6 (11.5)
No	42 (80.8)
Unknown	4 (7.7)

* Some patients presented with more than one symptom, therefore this row totals >100%. Note some unknown variables exist in patients that were enrolled after prior partial treatment at an outside institution.

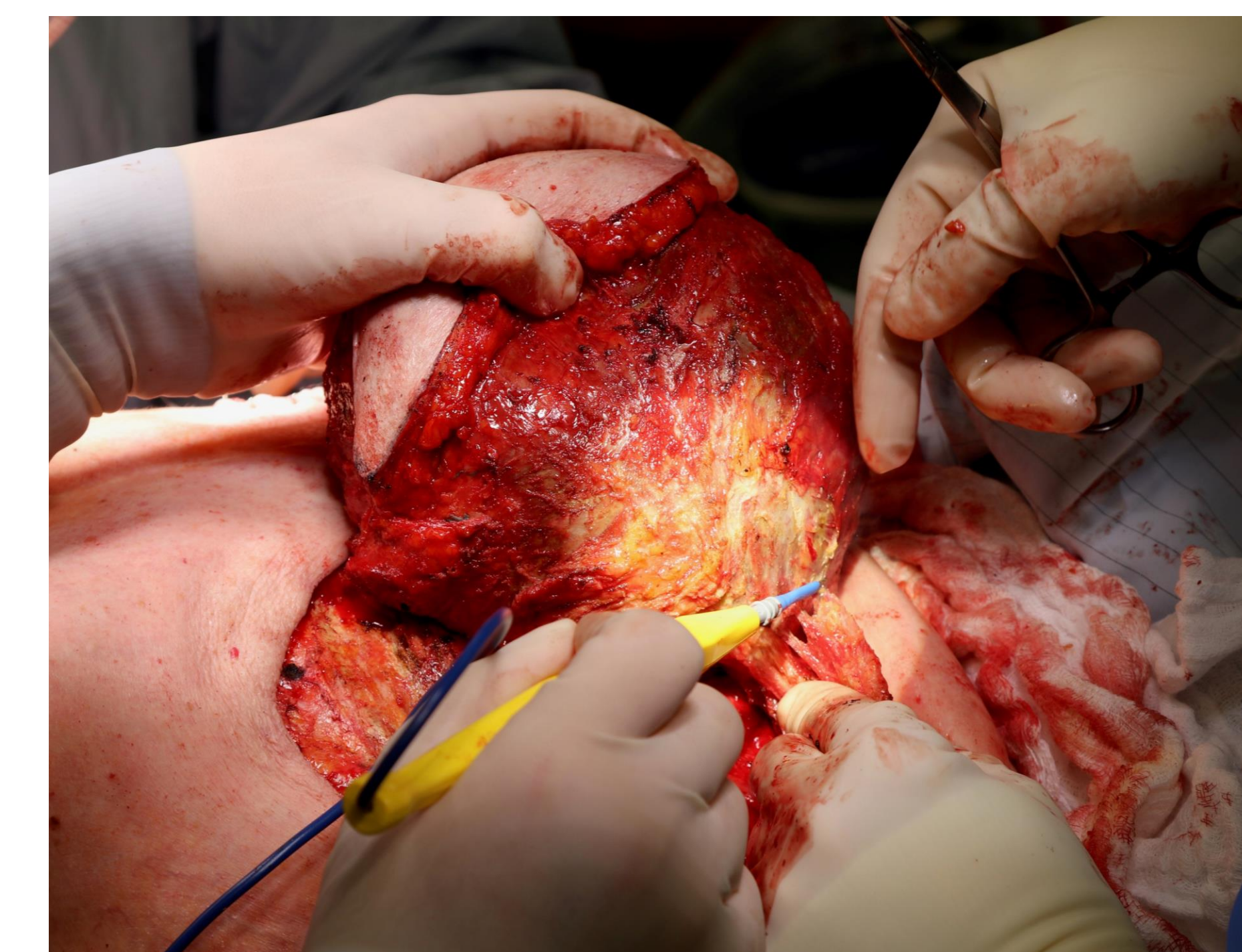


Figure 2: Patient is a 76-year old female who is who is fourteen years status post bilateral mastectomy for breast cancer. Patient was treated with a wide local excision.

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