



A COMPARATIVE STUDY OF OUTCOME OF BREAST ABSCESS BY ULTRASOUND GUIDED NEEDLE ASPIRATION AGAINST INCISION AND DRAINAGE

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ABSTRACT

Breast abscess remains a morbid condition. The aim of this study is to compare the results of ultrasound guided aspiration and incision and drainage in the management of breast abscess. USG guided aspiration is effective method of treatment in breast abscess with good patient satisfaction.

KEYWORDS : Breast abscess, USG guided aspiration, incision and drainage

INTRODUCTION-

The conventional treatment of breast abscess has been surgical incision and drainage¹. The minimally invasive method of USG-guided aspiration/repeated aspiration of the abscess is a cost effective method of drainage of breast abscess that entails minimal morbidity and has cosmetical advantages².

The present study intends to compare two methods, incision & drainage and USG guided aspiration in the treatment of breast abscess

MATERIAL AND METHODS

The patients admitted to B.S.M.C.H, Bankura with breast abscess was taken for this prospective study from June 2013 to May 2014, recruited 60 cases during the 12 months period of. Each patients were followed up upto 6 months postoperatively to know about any delayed complications.

RESULTS

Table No.1: Distribution of patients according to Symptoms (n=60)

Symptoms	Number	%
Pain	60	100
Fever	33	55

100% patients had pain, but 55% patients had fever.

Table No.2: Distribution Of Patients According To Signs (n=60)

Signs	Number	%
Temperature	60	100
Tenderness	60	100
Erythema	60	100
Cracked nipples	16	26.67

100% patients had raised temperature, local tenderness and local erythema; but only 26.67% patients had cracked nipples.

Table No.3: Distribution Of Patients According To Treatment Given (n=60)

Treatment given	Number	%
Aspiration	30	50
Incision and drainage	30	50
Total	60	100

The entire patients were equally distributed in aspiration and incision and drainage group.

Table No. 4: Number Of Aspirations Among Aspirated Patients (n=60)

No. of aspirations	No. of patients	% of aspirated
1	6	20
2	11	36.67
3	9	30
Failure	4	13.33

among the aspirated group most, 36.67%, responded with 2 aspirations. 20% and 30% patients responded after 1 and 3 aspirations respectively. 13.33% of aspirated patients were converted to open procedure.

Table No. 5: Comparison Of Post-treatment Pain Between Aspirated And Incised Group (n=60)

Post-treatment pain	Aspirated group (n=30)		Incised group (n=30)		Total		Chi-square	P-value
	Number	%	Number	%	60	%		
Present	17	56.67	6	20.0	23	38.33	8.53	0.003
Absent	13	43.33	24	80.0	37	61.67		

pain was present in 20% of patients in incised group, whereas 56.67% in aspirated group. The difference is statistically significant (p=0.003).

Table No. 6: Comparison Of Healing Time Pain Between Aspirated And Incised Group (n=60)

Healing time (in days)	Aspirated group (n=30)		Incised group (n=30)		Total		Chi-square	P-value
	Number	%	Number	%	60	%		
1-5	6	20.0	0	0	6	10.0	43.5294	<0.0001
6-10	14	46.67	0	0	14	23.33		
11-15	10	33.33	7	23.33	17	28.34		
16-20	0	0	14	46.67	14	23.33		
21-25	0	0	9	30.0	9	15.0		

most cases of aspirated group, 46.67%, healed between 6-10 days; whereas majority of incised group, 46.67%, healed between 16-20 days.

The healing period of incised group was 11-25 days, mean = 18.67 (+/-3.96) days. The healing period of aspirated group was 3-7 days, mean = 8.33 (+/-2.09) days. The difference is statistically significant, p-value <0.0001.

DISCUSSION

In 1995 Crowe DJ et al⁷ reported 21 patients presented with clinical abnormalities, including palpable mass (20; 95%), pain (11; 52%), erythema (11; 52%), warmth (7; 33%), skin thickening or fixation (4; 19%). In 2003 Leborgne F et al⁴ published report of 73 patients, among them only 12% were associated with fever, all patients had a palpable mass; in 80% the mass was painful, and in 71% the overlying skin was red. In this study 100% patients had pain, but 55% patients had fever; 100% patients had raised temperature, local tenderness and local erythema; but only 26.67% patients had cracked nipples. These findings are also comparable with them.

In 2012 Hamid H. Sarhan et al⁶ reported a series of 43 cases, of whom twenty-three (53.4%) of the patients obtained complete resolution (no focal collection) after one aspiration; 9 (21%) required two aspirations and 8 (18.6%) required more than two aspirations for the cure (residual collection). In 3 (7%) of the patients, the treatment failed, where symptoms had not resolved after 3 days, with further pus collection despite aspiration and antibiotics, where surgical drainage was required. In our group among the aspirated group most, 36.67%, responded with 2 aspirations. 20% and 30% patients responded after 1 and 3 aspirations respectively. 13.33% of aspirated patients were converted to open procedure. Our results showed that most of the abscesses, 86.97%, could be treated with aspiration and antibiotic therapy if the abscess cavity is completely or almost completely drained.

In our study at B.S.M.C.H; at the time of discharge, pain was present in 20% of patients in incised group, whereas 56.67% in aspirated group. The difference is statistically significant ($p=0.003$). Most of our cases of aspirated group, 46.67%, healed between 6-10 days; whereas majority of incised group, 46.67%, healed between 16-20 days. The healing period of incised group was 11-25 days, mean = 18.67 (+/-3.96) days. The healing period of aspirated group was 3-7 days, mean = 8.33 (+/-2.09) days. The difference is statistically significant, p -value <0.0001. All incised patients got post-treatment scar, 100%; which is totally absent in aspirated group, 100%. Similar outcomes of good cosmesis after needle aspiration of breast abscess were reported by Schwarz et al³.

In this study most cases of aspirated group, 66.33%, discharged between 4-7 days; whereas majority of incised group, 56.67%, discharged between 8-11 days. The hospitalization period of incised group was 6-14 days, mean = 9.32 (+/-2.11) days. The hospitalization period of aspirated group was 4-9 days, mean = 6.67 (+/-1.67) days. The difference is statistically significant, p -value =0.0005. This proves that aspiration is more economical. This was consistent with what was found elsewhere⁵

CONCLUSION

Majority of the breast abscess can be effectively treated without surgery on an outpatient basis, by combination of USG-guided needle aspiration and antibiotics with a cosmetic satisfaction. With similar reports from various centers, this technique should become the standard practice in the management of breast abscess

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