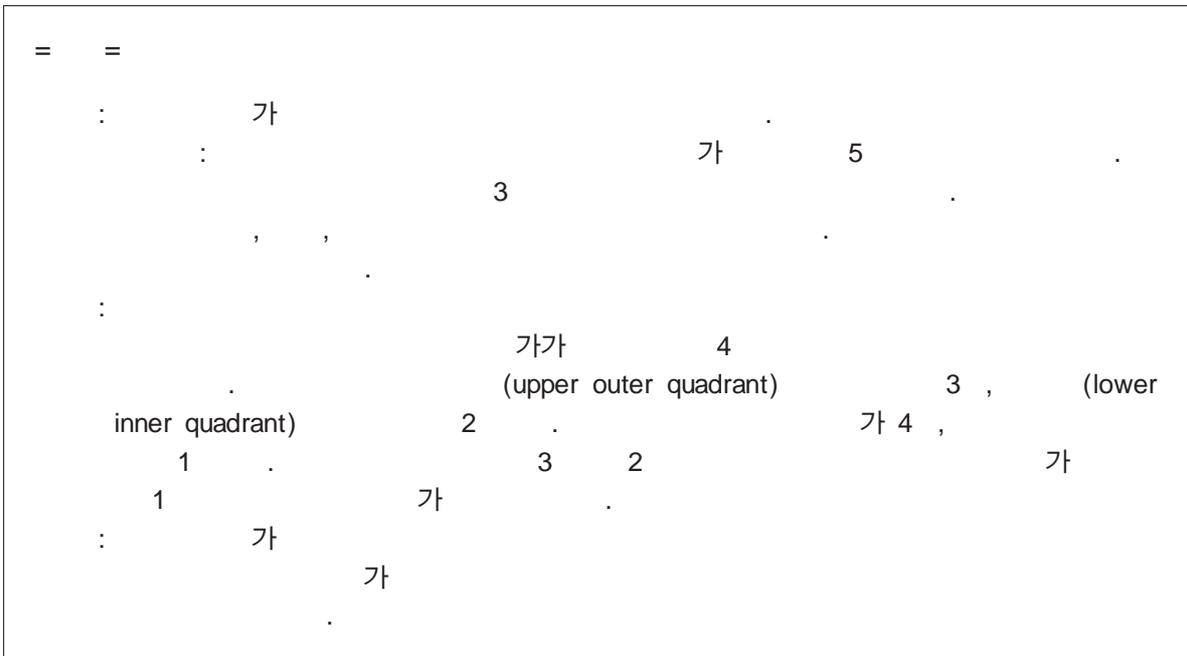


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 (Figs. 1 - 3). 4  
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**Table 1.** Summary of Clinical, Ultrasonographic and Mammographic Findings

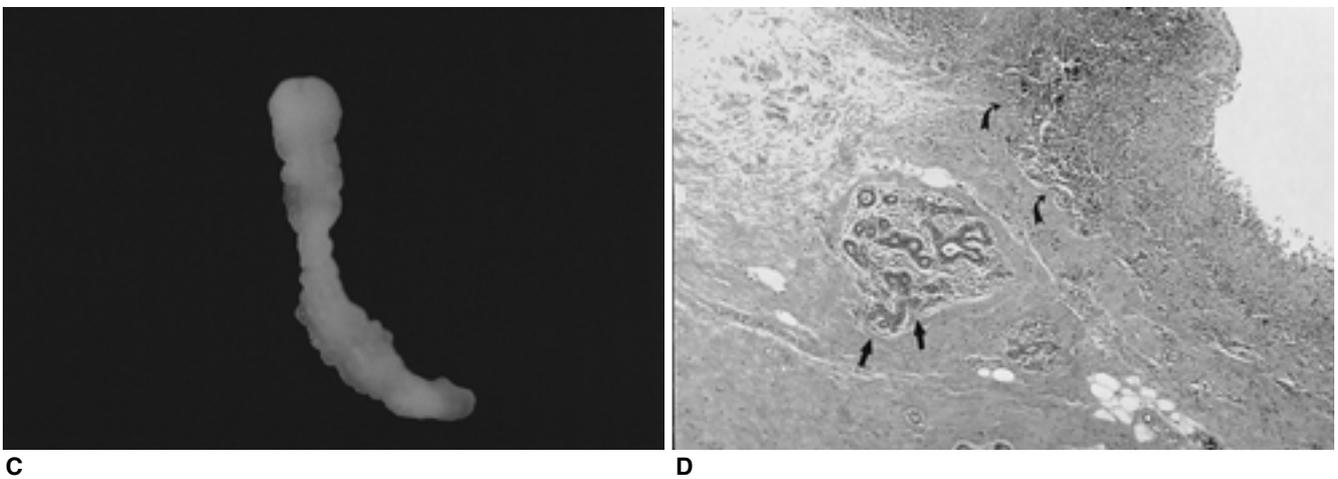
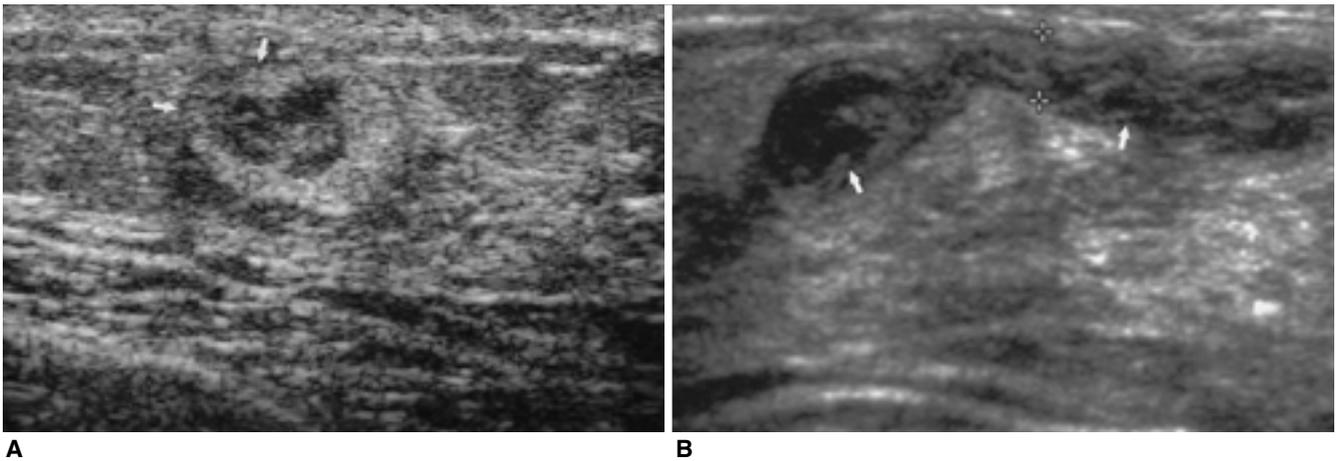
Case	Sex/Age	Clinical Symptom			Ultrasonogram				Mammogram
		palpability	migration	duration (month)	location	tubular mass	surrounding fat change	internal echo	tubular mass
1	F/46	+	+	6	LIQ	+	+	+	-
2	F/45	+	-	1	UOQ	+	+	-	+
3	F/47	+	-	3	UOQ	+	+	+	+
4	F/62	+	-	4	UOQ	+	+	+	Not taken
5	F/65	+	-	1	LIQ	+	+	+	Not taken

LIQ : lower inner quadrant, UOQ : upper outer quadrant,

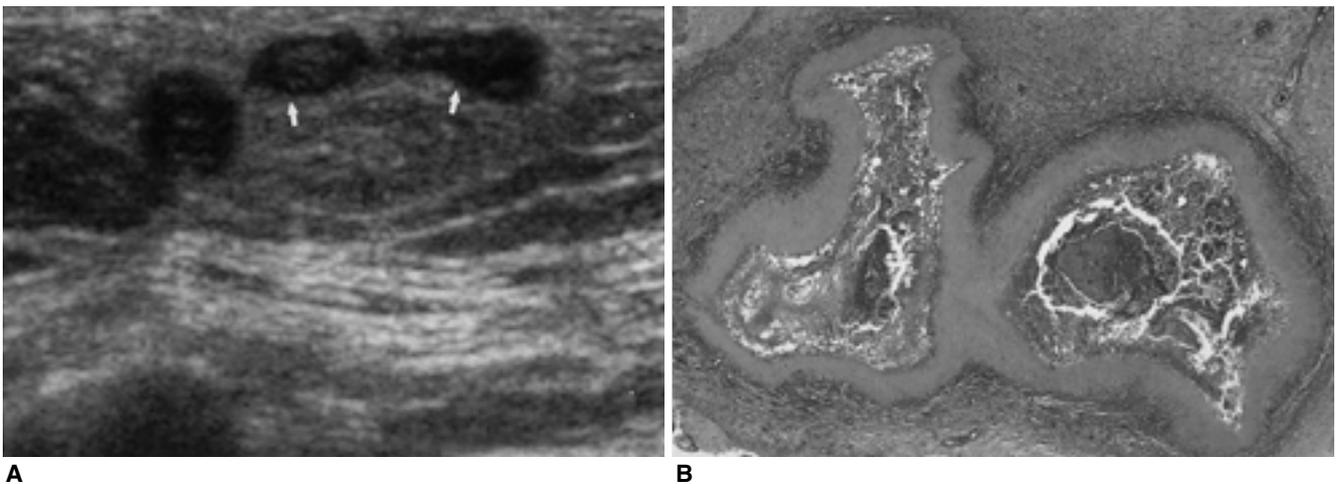


**Fig. 1.** 47-years-old-woman with a palpable mass in right breast for 3 month.  
**A.** Ultrasonogram shows hypoechoic tubular mass with heterogeneous internal echo (arrows) and increased surrounding fat echo (curved arrows) in subcutaneous fat layer. **B.** Mammogram shows a tubular density (arrows) mainly located in subcutaneous tissue of the upper outer quadrant of the right breast.





**Fig. 3.** 46-years-old woman with palpable and movable mass in right breast for 6 month. **A.** Initial ultrasonogram shows a doughnut-shaped mass (arrows) in subcutaneous fat layer at lower inner quadrant. **B.** Follow up ultrasonogram after six months shows hypoechoic tubular mass (arrows) with heterogeneous internal echo. **C.** The worm shows pseudosegmentation with irregular intervals on the surface on gross specimen. **D.** Breast parenchymal tissue (black arrows) is found adjacent to the granulomatous wall (curved black arrows) (H & E,  $\times 40$ ).



**Fig. 4.** 62-years-old woman with a palpable mass in left breast for 3 month. **A.** Ultrasonogram shows bead-like long tubular-shaped hypoechoic mass lesion (arrows) in subcutaneous fat layer at lower inner quadrant. **B.** This tunnel is filled with chronic granulomatous inflammatory and amorphous material. (H & E,  $\times 40$ ).

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= Abstract =

## US Findings of Breast Sparganosis

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**PURPOSE :** To evaluate the ultrasonographic appearances of breast sparganosis.

**MATERIALS and METHODS :** We retrospectively reviewed ultrasonographic findings of five patients (mean age = 53 years) with pathologically proven breast sparganosis. The shape, location, and surrounding boundary echo were evaluated. In addition, mammographic findings and clinical signs were also included.

**RESULTS :** All patients presented with palpable masses. On ultrasonogram, all cases showed hypoechoic tubular mass and increased surrounding fat echo were observed. Four cases showed heterogeneous internal echo. Lesions were located in the subcutaneous fat layer in four cases and glandular tissue in one case. Three cases were located in the upper outer quadrant, and two cases, in the lower inner quadrant. Mammograms showed tubular increased density in two cases.

**CONCLUSION :** Hypoechoic tubular mass with internal heterogeneous echo and increased surrounding fat echo in the subcutaneous fat layer can be the reliable ultrasonographic findings of breast sparganosis.

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