

A Case of Piriform Sinus Fistula Complicated with Suppurative Thyroiditis Treated with Chemocauterization Using Trichloroacetic Acid

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Introduction

Childhood acute suppurative thyroiditis is rare and usually associated with piriform sinus fistula. So complete surgical excision was treatment of choice in the past. However, it is a very invasive procedure and can cause injury of nerve or blood vessel around fistula. Recently, minimal invasive chemocauterization using trichloroacetic acid (TCA) of opening of piriform sinus fistula have been introduced. We report a case of acute suppurative thyroiditis associated with piriform sinus fistula treated with chemocauterization using TCA and antibiotics.

Case

- Patient : 23 months-old girl
- C/C : fever and left neck mass
- P/E :

General appearance : Acute ill appearance

Neck : Left neck swelling, redness, tenderness and heatness

<Lab findings>

Hb 11.6 g/dL
 WBC 15,000/uL(neutrophil 66%)
 PLT 458,000/uL
 ESR 68 mm/hr
 CRP 6.36 mg/dL
 T3 122.44 ng/dL
 fT4 1.46 ng/dL
 TSH 0.58 mIU/mL
 TSH R Ab 0.61 IU/L
 TG Ab 46.46 IU/mL
 Microsomal Ab 2.69 IU/mL
 Needle aspiration culture : *Streptococcus gordonii*

Conclusion

We report a case of piriform sinus fistula of the neck complicated with suppurative thyroiditis. The fistula was treated with chemocauterization using TCA

Image findings

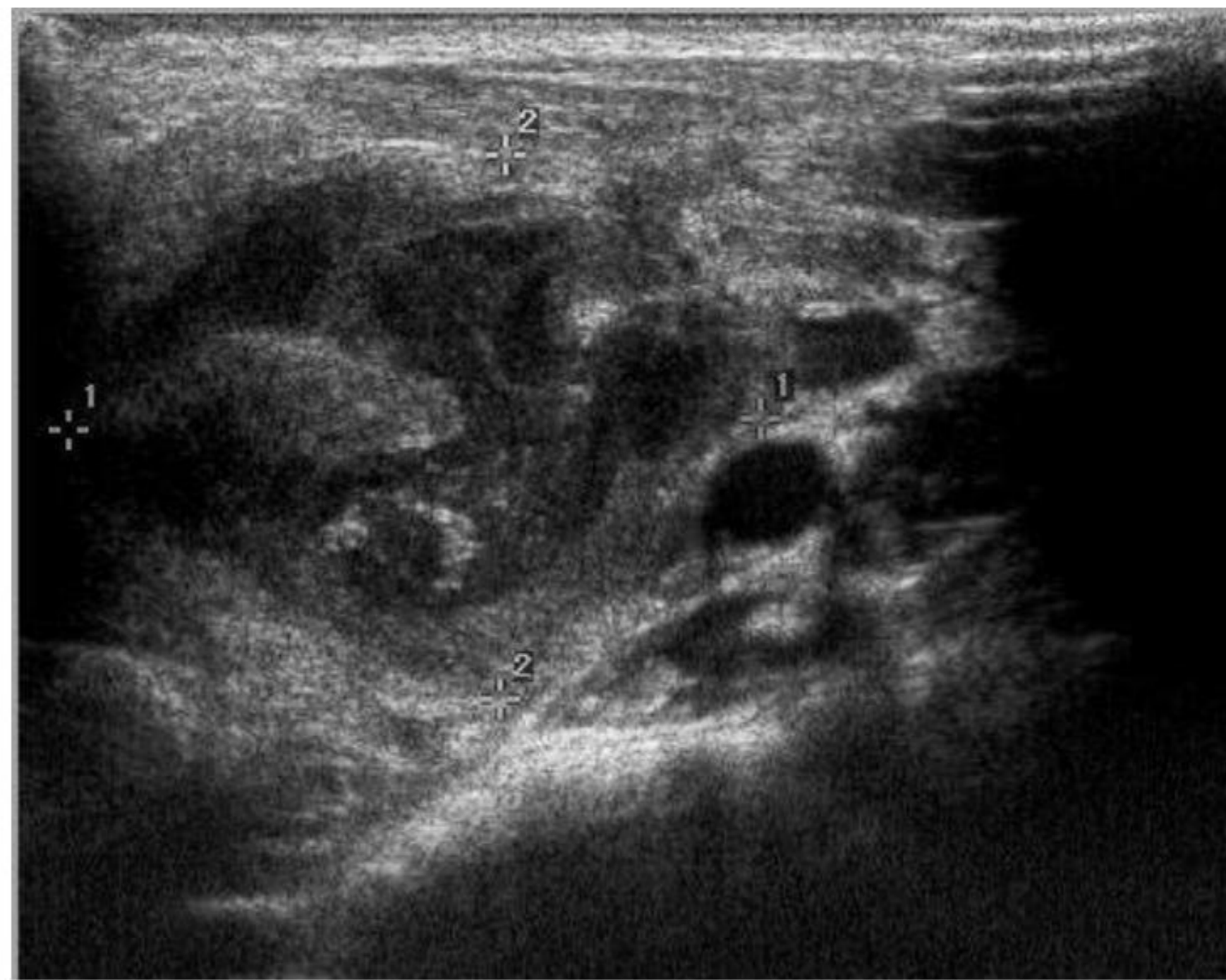


Fig. 1. USG shows a perithyroidal abscess in the left anterior deep cervical space.

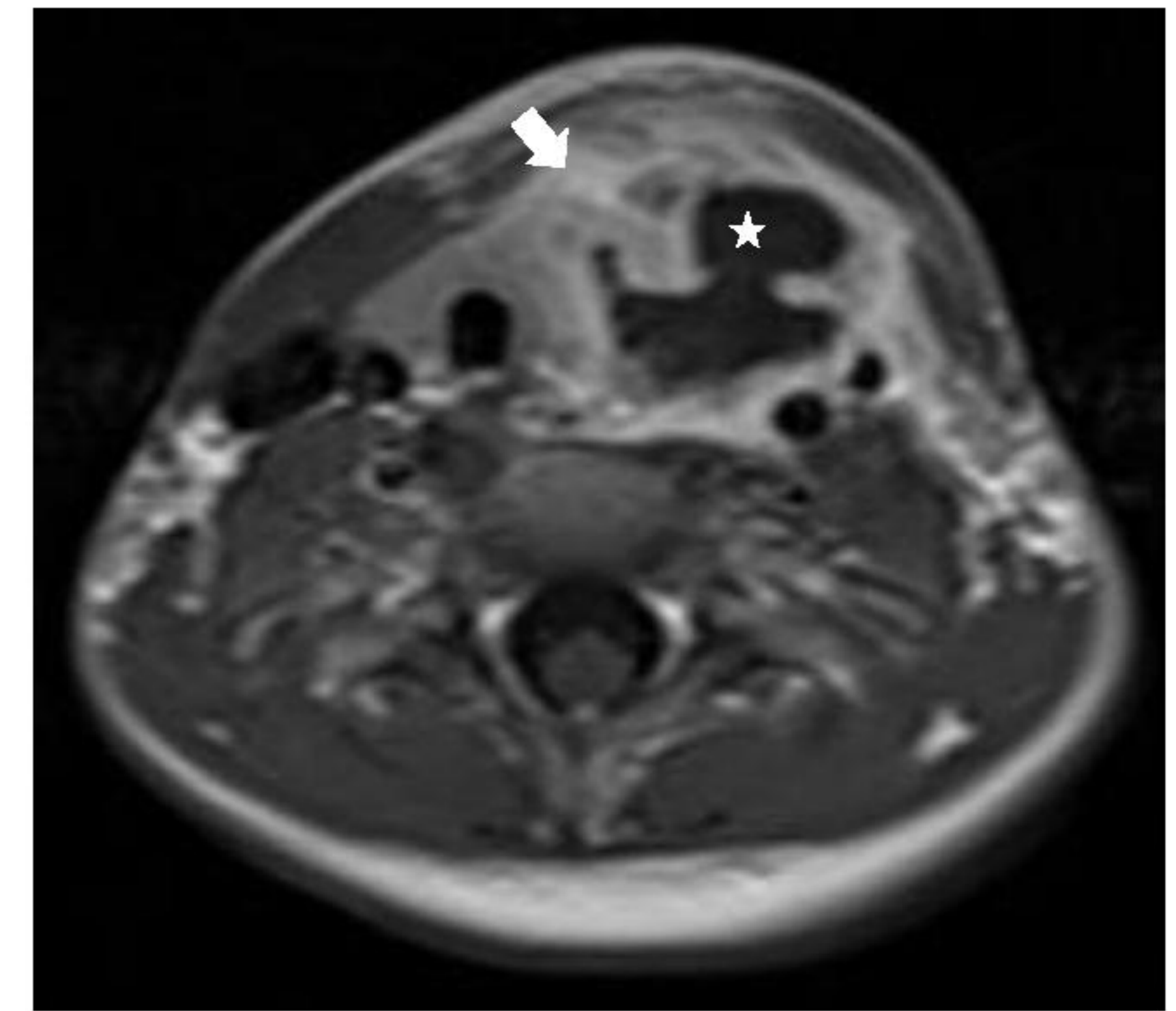


Fig. 2. Post contrast-enhanced T1-weighted MRI demonstrates an irregular rim-enhancing abscess cavity (white star) extending to the swollen left thyroid gland (arrow).



Fig. 3. Barium esophagography reveals a faint sinus tract (arrow) from the left piriform sinus.

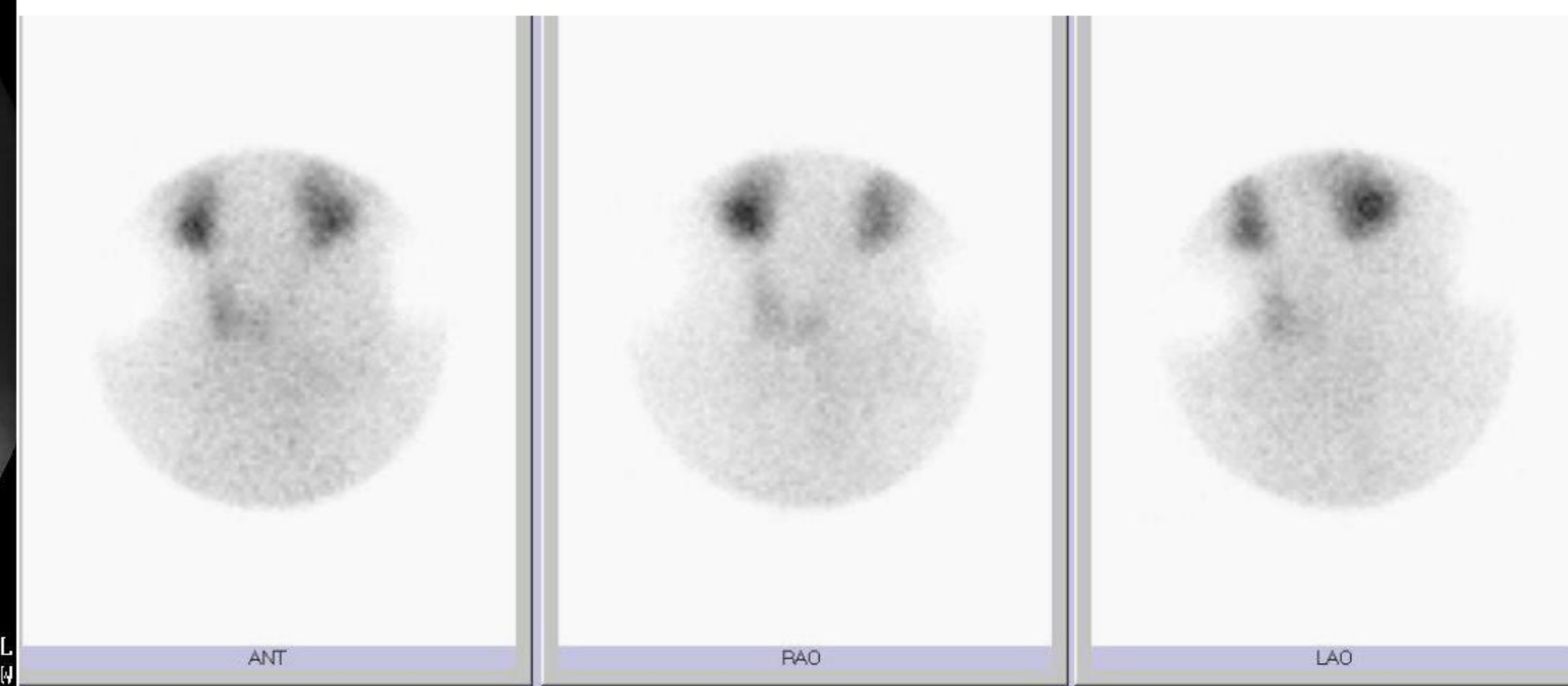


Fig. 4. Thyroid scan shows diffuse mildly decreased radioactivity of both thyroid glands.

Treatment & Hospital course

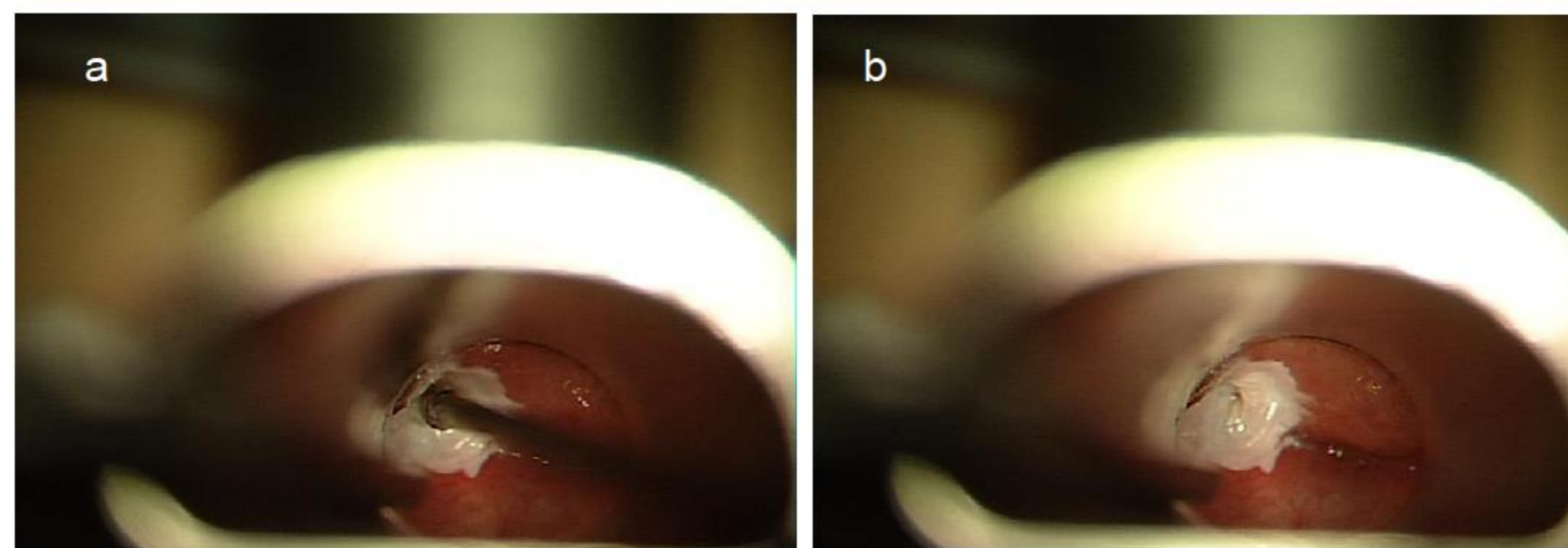


Fig. 5. Laryngoscopic finding of the chemocauterization. Internal opening of left piriform sinus fistula was cauterized with 20% TCA(a) and right after cauterization (b).

On admission : Cefotaxime (200mg/kg/d) , Vancomycin (40mg/kg/d), Metronidazole (30mg/kg/d) were administered

HD 6: Needle aspiration of the abscess was performed.

HD 8 : Fever and mass size decreased gradually.

HD 14: TCA chemocauterization was performed

HD 17 : Patient's condition improved and discharged.

References

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