

as a consequence of hyperthyroidism. Treatment with appropriate antithyroid therapy results in regression of the thymus. Invasive diagnostic procedures, such as anterior mediastinotomy biopsy, can be used when regression does not occur or when the possibility of a malignant tumor in the mediastinum cannot be ruled out.

CT scans and MR imaging are powerful tools for diagnosis, but few reports have showed images of such a large thymic hyperplasia. A chest CT scan of the present case showed a unique appearance: an anterior mediastinal mass consisting of soft tissue density with meshlike fatty-rich tissue. The lesion of soft tissue attenuation was predominant over the fat lesions before the treatment of hyperthyroidism. It was slightly enhanced with contrast medium (Fig. 1B). The regression of the thymic mass and the decrease of soft tissue attenuation may represent reduction in hyperplastic thymic tissue.

In the present case, after 19 months of treatment with antithyroid drugs, the volume of the thymic mass significantly regressed to 34% of its maximum volume (Fig. 3). The mass stopped regressing and remained in the right side of the anterior mediastinum for the following 6 years. What is the nature of this decreased residual mass? Graves' disease has occasionally been associated with thymolipoma.<sup>8,9</sup> Benton et al. proposed a possibility that involution of thymic hyperplasia is one of the causes of thymolipoma.<sup>10</sup> The changes observed in the CT image in the present case may represent the involution of hyperplastic thymic tissue and fatty replacement. According to Benton's hypothesis,<sup>10</sup> this may be the first case in which the development of thymolipoma has been observed. Malignant transformation of thymolipoma or recurrence after surgical excision has not been reported. However, most cases of thymolipoma cannot be observed during the development process because surgical resection is required for diagnosis. Although the mediastinal mass has not been resected, the present case with long-term observation for more than seven

years suggests that the process of regression from thymic hyperplasia is not a malignancy, and surgical resection of the residual mass would have little significance or benefit.

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