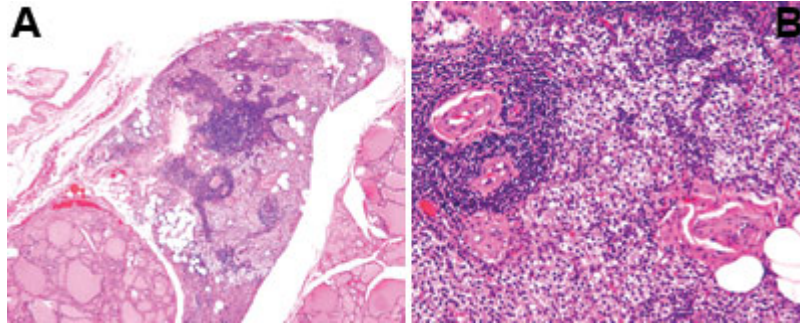


## Parathyroiditis

Lester D.R. Thompson, MD



*Figure. A: A parathyroid gland, adjacent to benign thyroid parenchyma, shows an infiltrate of lymphoid cells. B: Lymphocytes are sprinkled throughout the parathyroid gland in this example of parathyroiditis.*

Parathyroiditis is a rare and poorly understood condition. Chronic parathyroiditis may occur in patients with hypoparathyroidism, as well as in those with primary chief-cell hyperplasia. Most patients are asymptomatic. Antibodies to parathyroid tissue are seen in only a few cases of parathyroiditis. It is thought that parathyroiditis represents an autoimmune process similar to thyroid gland Hashimoto's disease. The presence of seronegative cases of parathyroiditis does not rule against an autoimmune etiology, because a similar phenomenon is observed in Hashimoto's thyroiditis. Based on this assumption, it is believed that the lymphocytic infiltration is an ongoing destructive process.

Parathyroiditis is characterized by a slightly enlarged gland, although the macroscopic appearance is not specific. Histologically, aggregates of mature lymphocytes are seen infiltrating otherwise normal parathyroid tissue (figure, A). There is often lymphoid follicle formation with prominent germinal centers (figure, B). Plasma cells and fibrosis (often heavy) may be identified, and destruction of the parenchyma has been reported. Atrophy of the residual parathyroid tissue may also be seen. More than one parathyroid gland may be involved, although multifocal disease is seen in the presence of autoimmune disorders, such as Sjögren's disease.

A chronic inflammatory proliferation may occur as a nonspecific reaction in patients with various infectious disease processes; however, such infiltrates are usually sparse and have a perivascular distribution. Lymphoma involving the parathyroid glands (as part of systemic disease) with distinctive morphologic features has been reported, but it is extremely rare.

The significance of parathyroiditis is unknown, and its management is supportive if clinically necessary.

### Suggested reading

Bondeson AG, Bondeson L, Ljungberg O. Chronic parathyroiditis associated with parathyroid hyperplasia and hyperparathyroidism. *Am J Surg Pathol* 1984;8:211-15.

Lloyd RV, Douglas BR, Young WF, Jr. Endocrine Diseases. *Atlas of Nontumor Pathology*. 1st series, fascicle 1. Washington D.C.: Armed Forces Institute of Pathology, 2002:61-2.