Subacute thyroiditis, or de Quervain’s disease, which is sometimes called giant-cell thyroiditis or granulomatous thyroiditis, is an inflammatory thyroid disease in which nearly all cases (95%) will fully recover.

In the typical case there are inflammatory symptoms with pain over the thyroid. This form of thyroiditis is therefore often referred to in the literature as painful thyroiditis in contrast to painless, which is used for silent autoimmune thyroiditis. In addition, the patient often exhibits general symptoms.

The inflammatory process results in a temporary release of thyroid hormone because of a disruption of the integrity of the follicle cells, a destruction phase, which is followed by a period with failing hormone production before the thyroid regains its function. The consequence is thus a dynamic biphasic progression before remission.

Subacute thyroiditis is uncommon in children. It occurs most frequently in young and middle-aged people and is slightly more common in women than men.

26.1 Etiology

The etiology of subacute thyroiditis is unclear. The fact that the disease often develops 1 or 2 weeks after upper respiratory tract infection indicates a possible connection with viral infections. Several viruses have been associated, such as the adeno and coxsackie viruses. Raised titres of antibodies have been demonstrated against upper respiratory tract viruses, but not against enterovirus.

In contrast to autoimmune thyroiditis, subacute thyroiditis has no increased occurrence of antibodies against thyroperoxidase, thyroglobulin or TSH receptors. Interestingly, over-representation of one tissue type, HLA-Bw35, has been found among patients with subacute thyroiditis, which indicates that a genetic predisposition may be involved.

26.2 Symptoms

Clinically, subacute thyroiditis is characterized by a relatively rapid development over a few days to a few weeks. Typically, there is general tenderness over the neck. The thyroid is often slightly to moderately enlarged with a characteristic, firm consistency at palpation. In typical cases, the tenderness is considerable, often over the entire thyroid, but it can also be localized in one lobe. In the latter case, the inflammatory process can later occur in the entire thyroid or move to other areas.

The patient often presents with pain over the neck, and may also have pain when swallowing. Quite frequently, the pain radiates from the thyroid up under the chin, up to the ears or sometimes down towards the chest.
Muscular pain, headaches and a general feeling of being unwell are typical. Fever is intermittent, often with a normal temperature in the morning and an increase to 38–39°C in the afternoon. Because of the extensive inflammation in the thyroid, stored hormone can leak out of the follicles and cause thyrotoxic symptoms.

The local symptoms in the neck may be more or less pronounced in subacute thyroiditis, or may even be absent. Some patients can therefore present with thyrotoxic symptoms or only with fever of unknown origin.

### 26.3 Progression

The course of this disease is quite characteristic (Fig. 26.1). The initial phase lasts a few weeks or months. In rare cases, the inflammatory process can continue for a longer period, often with exacerbation in different areas of the thyroid. In milder cases, the acute phase of the disease disappears spontaneously within a few weeks and both inflammatory and thyrotoxic symptoms cease. In other cases, the disease picture becomes more aggressive and can require anti-inflammatory treatment for a short while. Some patients can experience a phase with mild hypothyroidism before the integrity of the follicle is recovered. Most patients regain normal thyroid function. A few are affected by persistent hypothyroidism.

The size and consistency of the thyroid normalize in the large majority of cases, but occasionally persistent irregularities can be noted in the thyroid at palpation.

### 26.4 Diagnosis

Diagnosis is based on clinical findings: frequently elevated sedimentation rate, C-reactive protein and leucocytosis. Due to hormone leakage from the thyroid, elevated T4 is often seen with a decrease in TSH. T3 can also increase, but often less pronounced than T4.