B. Lipodystrophy

Fat tissue is markedly reduced or lost. It is classified by whether the atrophy primarily occurs systemically or locally, and whether the causative agent is congenital or acquired. Atrophy is often accompanied by dysbolism and internal organ failure.

1. Generalized lipodystrophy

1) Congenital generalized dystrophy

Several genes are involved in the occurrence of this rare autosomal recessive disease. With absent or reduced fat in the whole body from the time of birth or early infancy, muscles appear sharply defined. Hyperlipemia, hyperinsulinemia, enlargement of internal organs and insulin-resistant diabetes occur as complications.

2) Acquired generalized lipodystrophy

It manifests several days to several weeks after infectious precursors such as measles and varicella. Fat disappears in several months to several years, sometimes in several weeks. Girls are more commonly affected than boys. The cause is thought to be autoimmune abnormality.

2. Localized lipodystrophy

It is divided into congenital and acquired. Fatty atrophy occurs locally in the body. Atrophy occurs locally in fat tissue after panniculitis or in sites subjected to external stimulation. It may occur at the injection site of insulin, steroids, iron preparations or vaccines (post-injectional panniculitis). Panniculitis accompanying a collagen disease often causes lipodystrophy, such as in lupus erythematosus profundus, dermatomyositis, and scleroderma.

3. HIV-associated lipodystrophy

A lipodystrophy can be seen in patients with acquired immunodeficiency syndrome (AIDS). There are some variants. The most common type can develop following the use of protease inhibitor therapy. This type is characterized by the presence of peripheral lipoatrophy and central adiposity.

4. Lipodystrophia centrifugalis abdominalis infantilis

It is localized lipodystrophy produced most frequently on the groin or axillary fossae of infants. The etiology is unknown; however, genetic involvement is suspected because there are
familial cases. This is a rare disease, and most patients are Asians. Girls outnumber boys by 1.5 to 1. Painless erythema becomes sharply circumscribed and concave, with a swollen lymph node at the periphery. Within 7 years after onset, the depression stops expanding. It subsides in the two thirds of all cases.

C. Localized atrophy of fat tissue caused by various injurious stimuli

Subcutaneous fat necrosis of the newborn

Several days to 1 month after birth, plate-like subcutaneous indurations of various sizes occur on the buttocks and thighs, where fat is distributed. This is known to be a localized hypoxic condition in tissue. It may be accompanied by hypercalcemia. The induration heals spontaneously without scarring in 1 to 2 months.