Fig. **266** Amelioration of possibly precancerous skin lesions in the back of a 73-yr-old male patient within 10 months through daily intake of a thymus dragee[1] and the securing of a permanently good O_2 status ($\eta \approx 40\%$; resting Q_{O_2} 0.34 l/min^{-1}) by 15 min O_2MT quick procedures. Daily brushing of the affected skin areas for 20 s. Left: 1.1.1984; right: 1.11.1984

[1] Thym-Uvocal® (Dr K. Mulli KG, D-7844 Neuenburg, FRG)

skin impurities (comedones) and improvement of acne.

Figure **266** shows an example of the effect of an O_2MT long-term variant, with the daily administration of one thymus dragee over 10 months, on the skin of a 73-year-old patient.

5.3.11 Defense. Multistep stimulation of the cellular defense

In the same way as the condition of the vascular system, the condition of the defense system is also of decisive influence on the individual's health status. It is known that the organism has a series of mechanism to defend itself from harmful living or dead matter:

1. *Unspecific mechanisms* by co-operation of certain types of cells, the *unspecific cellular defense* and, mediated by soluble factors, the *unspecific humoral defense*.
2. *Specific mechanisms* through highly specific chemical reactions, the immune reactions. Here the organism forms a quite specific defense substance, the *antibody*, against a defined noxa, the *antigen*. Its damaging properties are neutralized by binding the antigen to the specific antibody and its ensuing breakdown (antigen-antibody reaction). The immune globulins represent the fraction of antibodies within the blood serum proteins (specific humoral defense). T-lymphocytes together with other defense cells mediate the specific cellular defense.

All these defense mechanisms need energy, and consequently oxygen.

The main weapons of the *unspecific cellular defense*, the great contribution of which to the defense process has recently been clearly seen, are the polymorphnuclear cells, and the carriers of the specific cellular defense, the T-lymphocytes. One way of increasing the host's defense is to raise the number of these cells in the blood. One way of doing this is discussed further below (see Paragraph 5.3.13.4). Another way is to increase the impact of the defense cells in general or their functional elements on the respective target, in particular by means of energy-raising O_2MT procedures.

With our subject matter it is obvious that we should ask about the *changes in the host's defense system with advancing age*. The critical decline in the provision of effector substances with advancing age should be mentioned here. An example is the drop in thymus products in the plasma as a result of the advancing involution of this gland (cf. Fig. **239**). We have found no indication of significant changes in the number of defense cells with age. By contrast, it is reported in [433] that certain *autoantibodies* continuously increase from the age of about 70. Increasingly autoaggressive im-