Salem and his colleagues [1 7] have developed a technique of pharyngeal stimulation by the frictional movement of a nasal catheter whose tip is accurately sited in the pharynx opposite C 2 and 3, and reported that 148 out of 150 patients were relieved by this purely mechanical means. But they agree that the effects of even this measure were only temporary and repeat in their recommendations the familiar lesson that if permanent relief is to be given the true cause must be sought out. In view of the conditions associated with so many cases of persistent hiccup this oft-repeated exhortation has about it a ring of desperation. Neurophysiological studies such as Newsom Davis's may open the door to a more hopeful approach to treating the symptom when the disease is beyond relief.

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Pneumonia in Atypical Measles

Two types of vaccines have been used for immunization against measles—a live (attenuated) vaccine and a killed (inactivated) vaccine. The live vaccine is used in Great Britain. The killed vaccine, which is now no longer available in this country, has two disadvantages. Firstly, it appears to give less protection than the live vaccine. Secondly, severe atypical measles may result from exposure to natural measles several years after receiving two or three injections of the inactivated vaccine.[1-6]

Atypical measles begins with two to three days of high fever, cough, headache, myalgia, and abdominal pain. A peripheral maculopapular rash usually follows on the limbs, including the palms and soles. The rash spreads centripetally, may be vesicular and petechial, and is often pruritic. Oedema of the limbs is often present. The rash is unlike that of ordinary measles because of its site of onset (feet instead of hairline), its progression (towards the head instead of away from it), its distribution (most dense in the lower limbs and in creases), and its character (a mixture of papular, petechial, vesicular, and urticarial components).

The pleura and lungs are often involved in the disease.[3 4 6] The pneumonia is lobar or segmental in distribution. The hilar nodes are usually enlarged and pleural effusion is frequent. These abnormalities have been found in the majority of patients examined by chest radiography during the illness. The chest radiograph may remain abnormal long after all other clinical evidence of the disease has cleared. Thus L. W. Young and colleagues[6] observed persistent pulmonary shadowing in eight of their ten cases. Ill-defined nodular shadows 1·5—4 cm across, located usually at the periphery of the lungs, persisted during a follow-up of between one and two years.

Atypical measles in response to wild measles virus has been attributed to an altered immune reactivity, which is known to occur in some recipients of killed measles vaccine. Persons who have previously received killed vaccine may show unusual local or systemic reactions when they subsequently receive attenuated live measles vaccine.[7-10] A hypersensitive state to both viral and non-viral antigenic components of the vaccine may be induced.[11] These abnormal reactions have been attributed to delayed hypersensitivity (type 4) and to Arthus (type 3) reactions. J. A. Bellanti and colleagues[12] have reported that many recipients of killed measles vaccine do not produce significant amounts of local secretory gamma A antibody despite adequate serum antibody response. These authors suggest that infection of such persons by natural measles results in replication of the virus in the respiratory tract and an accelerated serum antibody response, leading to the formation of immune complexes in the lung with subsequent tissue injury. Thus the killed vaccine may induce a condition of hypersensitivity rather than immunity, resulting in atypical illness on subsequent infection with natural virus or vaccination with live virus vaccine.

An atypical illness has also been seen in people who have previously been given killed respiratory syncytial virus vaccine.[13] Since multiple injections of formalin-killed concentrated alum-absorbed measles vaccine are no longer used, atypical measles is not likely to continue to occur. But there is a need to clarify the mechanisms underlying the atypical illness occurring in recipients of these two killed myxovirus vaccines.

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Hepatic Porphyrias

The porphyrias are disorders of the biosynthesis of haem—the pigment part of haemoglobin, cytochrome, and other haemoproteins—in which there is overproduction of haem precursors. They can be divided into hepatic and erythropoietic types according to whether the site of disordered haem synthesis is the liver or the bone marrow. The clinical features and chemical differentiation of these disorders have been reviewed.[1-3] They were recently discussed at a conference[4] in Cape Town, special attention being paid to the hepatic porphyrias, which are a particularly important problem in South Africa, where variegate and symptomatic porphyria are commoner than elsewhere.

Of the hepatic porphyrias three are inherited as autosomal dominants—acute intermittent porphyria, variegate porphyria, and hereditary coproporphyria—while one, symptomatic cutaneous hepatic porphyria ("porphyria cutanea tarda"), usually occurs sporadically. The three inherited hepatic porphyrias all have certain features in common. The patients are subject to clinically similar acute abdominal and