diet to enable them to achieve their full intellectual potentiality. However, much remains to be worked out about the effects of early feeding and survival. In animals rapid maturation on a high-protein diet results in higher intelligence and a shortened life span, but it is uncertain how readily these results are transferable to man. More pertinent are some findings of G. R. Osborn,[8] who has correlated the state of the coronary arteries of teenagers with the early feeding history, and has shown that those who had no breast-feeding had mainly abnormal arteries, whereas most of those breast-fed for over two months had normal ones. Infant-feeding continues to deserve study.

Herpes Hepatitis

Herpes simplex is the most protean of viruses in the wide variety of diseases it can cause. Primary infection, though probably most often symptomless, may take the form of gingivo-stomatitis,[1] kerato-conjunctivitis, vulvo-vaginitis, cervicitis,[2] whitlow,[3] or Kaposi's varicelliform eruption.[4] Encephalitis, and especially acute necrotizing encephalitis, is the most severe form of herpes simplex and may be either a primary or recurrent infection.[5 6]

The disease rarely attacks newborn babies, because though very susceptible to virus infections they are normally protected by maternal antibody. However, in infants born to non-immune mothers the virus can give rise to a generalized infection, with a high mortality rate,[7 8] in which hepatitis with areas of necrosis and intranuclear inclusions in the liver cells is a characteristic feature. This disease has also been reported outside the neonatal period in infants and small children, most of whom were suffering from malnutrition.[9 10] In fact malnutrition appears to predispose to the development of generalized herpes in children, who are not usually susceptible to this form of the disease.

Though hepatitis in adults is associated with various viruses such as those of infectious and serum hepatitis, glandular fever, yellow fever, and cytomegaloviruses, it had not until now been reported with herpes simplex. But recently T. H. Flewett, R. G. F. Parker, and W. M. Philip have described a well-documented case of herpes hepatitis in an adult.[11] The patient was in the 28th week of pregnancy when she developed vomiting, with herpetic ulceration of mouth and pharynx. A week later her condition deteriorated and she became jaundiced, with dehydration, stupor, and collapse. A liver biopsy confirmed the diagnosis of hepatitis, showing the areas of necrosis and intranuclear inclusions characteristic of neonatal herpes. Herpes simplex virus was isolated from both the liver tissue and the mouth lesions, and primary infection with the virus was confirmed by serological tests. Electron-microscopy showed some shrunken cells in the liver which contained herpes-type virus particles in the nuclei. There was therefore little doubt that the patient had a hepatitis due to herpes simplex virus. She had also, however, hyperemesis gravidarum and had been treated with oral tetracycline and trifluoperazine—all of which are known to be capable of causing liver damage. It seemed probable that in this patient these factors might have increased her susceptibility to liver damage in the same way as malnutrition predisposes to the development of generalized herpes in small but not newborn children. The patient eventually made a complete recovery after being dangerously ill for four days. She was delivered of a macerated foetus four weeks after the onset of hepatitis, and it would have been of interest to know if the virus had also infected the foetus. Unfortunately, virological investigation of the products of conception was apparently not carried out.

This interesting case provides evidence that, under some circumstances, herpes simplex virus can cause severe systemic disease in adults as well as small children. Viral diagnostic techniques are becoming available on an increasing scale in Britain, and it seems possible that other unsuspected or rare syndromes associated with this ubiquitous and versatile virus may come to light in the future.

[1] Brain, R. T., *British Medical Journal*, 1956, **1**, 1061.
[2] Willcox, R. R., *British Medical Journal*, 1968, **1**, 610.
[3] Stern, H., Elek, S. D., Millar, D. M., and Anderson, H. F., *Lancet*, 1959, **2**, 871.
[4] Clinicopathological Conference, *British Medical Journal*, 1962, **1**, 313.
[5] Buckley, T. F., and MacCallum, F. O., *British Medical Journal*, 1967, **2**, 419.
[6] Miller, J. D., and Ross, C. A. C., *Lancet*, 1968, **1**, 1121.
[7] Hass, G. M., *American Journal of Pathology*, 1935, **11**, 127.
[8] Quilligan, J. J., and Wilson, J. L., *Journal of Laboratory and Clinical Medicine*, 1951, **38**, 742.
[9] Becker, W., Naudé, W. du T., Kipps, A., and McKenzie, D., *South African Medical Journal*, 1963, **37**, 74.
[10] Kipps, A., Becker, W., Wainwright, J., and McKenzie, D., *South African Medical Journal*, 1967, **41**, 647.
[11] Flewett, T. H., Parker, R. G. F., and Philip, W. M., *Journal of Clinical Pathology*, 1969, **22**, 60.

Softly, Softly . . .

In the eight-year period 1959–66 more than five million people were vaccinated in Mali, which has a population of 4½ million. Despite this effort, the attack rate for smallpox in 1967 was still 6·3/100,000. P. J. Imperato[1] has recently described the problems faced by the teams working to eradicate smallpox in the republic. The solution he adopted is novel but may well be successful.

Orthodox vaccination campaigns are carried out by mobile teams which visit each district in a region in turn. The teams do not enter every village, but most of the villagers come to be vaccinated—the elderly and children too small to walk but too big to be carried are usually the only groups unvaccinated. Unfortunately, a small but important segment of the population is made up of nomadic traders, who are not reached by the conventional campaigns, and who are clearly of importance in the epidemiology of smallpox. So a new strategy has been devised. Village markets in Mali are now visited one week after the conventional vaccination team has called. At dawn, policemen, vaccinators, and recorders are placed at every entrance to the market, and no one can enter without being screened for vaccination status. Armed as they are with multidose jet injectors the vaccinators have no trouble in keeping up with the flow of marketeers, but as a final check road blocks are set up on the roads leading out of the village and all those leaving the market are examined again. Few of the nomadic traders refused vaccination, and, as few had ever been offered it before, the scheme seems to be achieving its object.

[1] Imperato, P. J., *Journal of Tropical Medicine and Hygiene*, 1969, **72**, 8.

On 22 April the Secretary of State for Social Services announced the appointment of Sir Derrick Dunlop as first chairman of the Medicines Commission.