

The abnormality in the platelets in plasma rich in platelets taken from uraemic patients could not be corrected in vitro by dialysis or by adding normal plasma poor in platelets. However, the failure of dialysis in vitro does not exclude a direct effect; restoration of function may not occur until the platelets have been returned to the circulation or have been in a normal environment for a longer time than the period of the in vitro test.

From their observations Stewart and Castaldi conclude that the qualitative platelet defect in uraemic patients is caused by the retention of a dialysable substance which would normally be excreted by the kidney. The impairment of function may be due to the net effect of many substances, but it is possible that a single agent is solely or largely responsible. More recently H. L. Horowitz and his colleagues⁸ have reported a defect in the activation of platelet factor 3 by adenosine diphosphate in blood from uraemic patients. Further studies pointed to the presence of an inhibitor of this reaction in the plasma of these patients, and preliminary observations suggest that the inhibitory factor may be a newly described intermediate of urea metabolism, guanidinosuccinic acid. If this can be confirmed we may look forward to further advances in the knowledge of the physiology and pathology of platelets.

Chicken-pox Pneumonia

Chicken-pox is generally a trivial infection in children, but it tends to be more severe in adults and may be accompanied by pneumonia caused directly by the virus. Various surveys¹⁻³ in the U.S.A. have placed the incidence of chicken-pox pneumonia in adults between 16 and 33%, but it is found less frequently in Britain. The disease varies greatly in severity.⁴ At one extreme it can be a catastrophic illness characterized by severe dyspnoea, cyanosis, haemoptysis, and prostration, at the other a condition so mild that it can be detected only by routine radiography.

In a typical attack the patient is an adult with a heavy rash, which has usually been present for two to five days, in whom the spread of the disease to the lungs is heralded by a dry cough followed by increasing breathlessness and cyanosis. Abnormal signs are seldom present initially, but as the patient's condition deteriorates air entry diminishes and adventitious sounds are heard. The classical signs of consolidation are not found. After 48 hours the cough becomes productive of scanty mucoid sputum, which may be streaked with blood. Occasionally there is a more severe haemoptysis. Culture of sputum gives a sparse growth of bacteria, mainly commensals. The white blood cell count is usually normal but may show a polymorphonuclear leucocytosis. The sedimentation rate is rarely raised. After a week the patient's condition begins to improve and towards the end of the second week he emerges from the critical phase to face a prolonged period of convalescence. The cough and abnormal chest signs quickly disappear, but breathlessness may persist for

several weeks. If the illness is associated with neoplastic disease or pregnancy the prognosis is poor.

During the acute phase x-ray examination shows widespread nodular opacities in both lung fields. The lesions vary in size from several millimetres to more than one centimetre. In most patients resolution occurs within eight weeks,⁵ but occasionally a coarse reticular pattern of small, very soft nodules persists for years.⁶ J. B. Mackay and P. Cairney⁷ first drew attention to the association between chicken-pox in adult life and miliary calcification of the lungs. Their observations have been confirmed by A. F. Knyvett,⁸ who followed three patients from the early stage of soft nodular shadowing to calcification.

Chicken-pox pneumonia should be suspected if respiratory symptoms develop during the acute eruptive stage. When mild no special treatment is required, but patients with respiratory distress need skilled nursing in hospital. Though antibiotics have no obvious effect, they are usually prescribed for seriously ill patients in the hope of controlling secondary bacterial infection. The value of corticosteroid drugs is controversial. Rapid improvement may sometimes follow their administration, but on other occasions they fail to avert disaster. However, they do not appear to be harmful when given for the first time during the acute stage of chicken-pox. Beneficial results have been reported from the use of hyper-immune gammaglobulin,⁹ but further experience is required before its value in severe chicken-pox can be assessed, and supplies are extremely limited. Oxygen should always be given to patients with chicken-pox pneumonia who show deep cyanosis; should this persist tracheostomy and intermittent positive pressure respiration may prove life-saving.⁹

The Royal Society

The new premises of the Royal Society at 6 to 9 Carlton House Terrace were formally opened by the Queen on Tuesday this week. It was the first time that the Monarch, as Patron, had personally opened a new home of the Society. Her Majesty was accompanied by Prince Philip, Duke of Edinburgh, and Earl Mountbatten of Burma, both Fellows of the Society.

In the three centuries of its existence the Royal Society has occupied homes in Gresham College in the City of London, in Crane Court in Fleet Street, in Somerset House, and for the past century in Burlington House, Piccadilly. At Burlington House the Society's activities greatly increased in response to the growing importance of science in the community. The office staff of two in 1873 is now nearly 80, and not all of them could be accommodated in the building.

The new premises provide more than twice the space the Society had before. They have been formed by adapting four separate houses, the work of conversion being financed by an appeal fund launched by Lord Florey when he was president. Their situation, finely illustrated in a commemorative booklet, is unusually attractive. Not only do they face St. James's Park and the Mall but they are on the main pedestrian route between Parliament Square and the centre of the West End.

In congratulating the Society as it embarks on another stage of its development, we are sure that its new headquarters in the heart of the metropolis, made possible by the efforts of many people over a period of years, will be a source of pride and inspiration to the Society as it continues to play an increasingly significant part in the world of science.

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⁴ Carstairs, L. S., and Emond, R. T. D., *Proc. roy. Soc. Med.*, 1963, **56**, 267.

⁵ Brailley, A. G., jun., and Husebye, K. O., *Minn. Med.*, 1958, **41**, 695.

⁶ Knyvett, A. F., *Quart. J. Med.*, 1966, **35**, 313.

⁷ Mackay, J. B., and Cairney, P., *N.Z. med. J.*, 1960, **59**, 453.

⁸ Loebl, W. Y., and Taylor, C. E. D., *Lancet*, 1966, **1**, 1037.

⁹ Tidström, B., *Scand. J. resp. Dis.*, 1967, **48**, 40.