

plant rejection. The absence of staining for leucocyte markers and the characteristic electron microscopic findings show that the light microscopic appearances do not merely represent inflammatory cell fragmentation. The pathogenesis of this finding is uncertain. Mild ischaemia and cytotoxic T lymphocyte mediated killing can both cause apoptosis.⁴ Clinically important ischaemia must have occurred in this case because of the severity of vascular damage. Lymphocytic infiltration was seen in tubules but was absent in glomeruli. In rats perfusion of kidneys with Lyl antibody, which binds to mesangium, induces "mesangiolytic", changes morphologically similar to apoptosis.⁵ Antibody dependent mechanisms are thought to be important in vascular rejection with endothelial cells the principal target. Interestingly, apoptosis was most prominent in glomerular endothelial cells.

The importance of apoptosis in transplant rejection is unclear. It may represent a specific form of cell killing or be a reflection of ischaemia. Further studies are underway to assess its clinical importance in various patterns of rejection and its prognostic value, if any.

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- 1 Wyllie AH. What is apoptosis? *Histopathol* 1986;10:995-8.
- 2 Harrison DJ. Cell death in the diseased glomerulus. *Histopathol* 1988;12:679-83.
- 3 Porter KA. Renal transplantation. In: Heptonstall RH, ed. *Pathology of the Kidney*. Vol. 3. 3rd Edition. Boston: Little, Brown & Co, 1983:1455-547.
- 4 Ucker DS. Cytotoxic T lymphocytes and glucocorticoids activate an endogenous suicide process in target cells. *Nature* 1987;327:62-4.
- 5 Yamamoto T, Wilson CB. Quantitative and qualitative studies of antibody induced mesangial cell damage in the rat. *Kidney Int* 1987;32:514-25.

coccal disease, and the isolation rate seems to be unaffected by parenteral antibiotic treatment administered within three or four hours of the collection of the throat swab (Cartwright KAV, unpublished observations). While in theory it may be possible for a case to yield different strains from cerebrospinal fluid, blood, and throat cultures, in practice this situation has never been encountered among the many "sets" of such strains received at the reference laboratory each year. If a meningococcus is isolated from a throat swab in addition to a deep site (blood or cerebrospinal fluid) the strains are always of the same group and type (though strains from the throat are often less well endowed with capsular polysaccharide and are therefore occasionally non-groupable).

We therefore reiterate our belief in the value, both clinical and epidemiological, of throat swabs collected from the index case, especially when the patient has been given parenteral penicillin by the general practitioner or when a lumbar puncture has not been performed.

We are currently preparing data for publication on the pattern of meningococcal carriage in contacts of cases of meningococcal disease.

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- 1 Jewes L, Norman P, McKendrick MW. Value of throat swabs in meningococcal meningitis. *J Clin Pathol* 1989;42:1229.
- 2 Cartwright KAV, Jones DM. Investigation of meningococcal disease. *J Clin Pathol* 1989;42:634-9.

Leukaemic phase of mantle zone lymphoma

The article, "Leukaemic phase of mantle zone (intermediate) lymphoma: its characterisation in 11 cases,"¹ was very informative. Intermediate lymphocytic lymphoma (ILL) can pose problems with regard to correct diagnosis and therefore treatment. In their introduction the authors mention that in the Working Formulation most cases would be assigned to the category of small cleaved cell type with intermediate prognostic grade. In their discussion, however, they state that it is a form of low grade lymphoma. It is therefore not clear from this paper or from the literature as to the proper grading of this type of lymphoma in the Working Formulation. Weisenburger *et al*, on the basis of immunophenotyping and cytogenetic studies, suggest that there is a close lineage relation between ILL and small lymphocytic lymphoma/chronic lymphocytic leukaemia.² They feel that on the basis of their differing clinical, cytological, and architectural features, cases of ILL should be considered a separate category of lymphocytic lymphoma of the Working Formulation. On the other hand, the median survival of less than 24 months in the series reported by Pombo de Oliveira, Jaffe, and Catovsky,¹ and 22 months (leukaemic patients) in the series reported by Weisenburger *et al*,³ would tend to suggest that it may be more appropriately classified into the intermediate prognostic grade. In the latter series, even in cases without leukaemic

phase, the median survival was only 35 months.

Perhaps a multi-institutional study comprising a large number of cases, which also incorporate immunological and cytogenetic data, would result in a better understanding and therefore a more appropriate categorisation of this non-Hodgkin's lymphoma.

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- 1 Pombo de Oliveira MSI, Jaffe ES, Catovsky D. Leukaemic phase of mantle zone (intermediate) lymphoma: its characterisation in 11 cases. *J Clin Pathol* 1989;42:962-72.
- 2 Weisenburger DD, Sanger WG, Armitage JO, Purtilo DT. Intermediate lymphocytic lymphoma: immunophenotypic and cytogenetic findings. *Blood* 1987;69:1617-21.
- 3 Weisenburger DD, Nathwani BN, Diamond LW, Winberg CD, Rappaport H. Malignant lymphoma, intermediate lymphocytic type: a clinicopathologic study of 42 cases. *Cancer* 1981;48:1415-25.

HPV or human parvovirus?

A short while ago a letter in this Journal commented on the inappropriateness of the designation "HPV" for human parvovirus, stating that HPV had been the denominator for human papillomaviruses for many years.¹

At the risk of the subject becoming tedious, I would like to expand on this issue. Earlier this year I expressed concern regarding the use of the abbreviation "HCV" for a newly identified non-A, non-B hepatitis virus designated C. As far back as 1975 a report by the Study Group of Coronavirus, Vertebrate Virus Subcommittee, International Committee on the Taxonomy of Viruses (ICTV) proposed a list of abbreviations for the species of coronavirus, including HCV for human coronavirus.² This and abbreviations for other coronaviruses were again stated in the second report of the ICTV Coronavirus Study Group 1978.³

The use of the abbreviation HCV for a hepatitis C virus in man could cause considerable confusion, and matters could get worse should another candidate non-A, non-B hepatitis virus be designated hepatitis E virus (HEV). This abbreviation already exists for porcine haemagglutinating encephalitis virus - by chance another coronavirus! In my opinion it is therefore inappropriate to use the abbreviation HCV for anything other than human coronavirus. If it is necessary to classify viruses causing hepatitis in man as A, B, C, D, etc, then the name should surely be prefixed with the word human-human hepatitis C virus HHCVC.

I have been informed that abbreviations of virus names have no formal or official status. Why, then, are they acceptable as key words on papers? Literature searches can be difficult enough without further avoidable complications! Clearly, virus name abbreviations need to be regulated by the appropriate virus study group - now.

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- 1 Vermeer-De Bondt PE, Van Elsacker-Niele AMW. Designation of "HPV" for human parvovirus. *J Clin Pathol* 1989;42:780.
- 2 Tyrell DAJ. Coronaviridae. *Intervirology* 1975;5:76-82.
- 3 Tyrell DAJ. Coronaviridae: Second Report. *Intervirology* 1978;10:321-8.

MATTERS ARISING

Value of throat swabs from index cases of meningococcal meningitis

We believe that Jewes, Norman, and McKendrick¹ may have misinterpreted our comments in Broadsheet 121 (Investigation of Meningococcal disease)² on the value of throat swabs as an aid to the diagnosis of meningococcal meningitis. They point out that strains of meningococci isolated from the throats of contacts are often different from the strain isolated from the index case, and that throat swabbing contacts is of no value. We agree with this contention; large numbers of contact isolates received at the reference laboratory show just how diverse these can be.

In the Broadsheet, however, we discussed the value of a throat swab obtained from the index case as an aid to diagnosis. Meningococci can be isolated from throat swabs in about half the cases of invasive meningococcal