virus were, indeed, present in the serum, and specific IgM was detected by radioimmunoassay.[4] The other subject had no record of any recent clinical symptoms. His serum had traces of DNA and was negative for IgM and IgG.

Antibodies shown by immunoelectroosmophoresis were found in about 25% of the contacts of the two antigen positive subjects. A similar prevalence of human parvovirus infection has been observed in the general population (study in preparation). We must point out, however, that the lack of a follow up on the antibodies in the subjects does not prove that this high incidence of viraemia was related to human parvovirus outbreaks in the two units at that time.

The detection in serum of antigen and antibody at the same time, although uncommon, is of some interest and adds evidence to some previous observations on the persistence of the human parvovirus antigenemia during the initial phase of the humoral response.[4,5] Immunocomplex deposits cause damage leading to a variety of syndromes and some of them, such as rashes and arthralgia, may follow infection with parvovirus.[1] It would be interesting to find associations between immune complexes and the clinical course of the disease. Assays of circulating human parvovirus immune complexes in acute and early convalescent serum samples may provide useful information.

The DNA and IgM and IgG tests were performed in the department of medical microbiology, University College Hospital, London.

We thank Dr MJ Anderson for providing virus, reference sera, and research facilities.

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Survival of *Bordetella pertussis* in transport media

Concern has been repeatedly expressed over the low isolation rates of *B pertussis* from clinical cases of whooping cough.[1–3] Poor recovery from pernasal swabs is thought to be due to previous immunisation,[1] faulty swabbing technique,[4] or retention of the organism on the swab.[5] This study was performed to determine what effect the transport media used had on the survival of the organism.

A heavy suspension of the laboratory stock strain of *B pertussis* was made in saline. Forty two cotton wool pernasal swabs (Medical Wire and Equipment) were then dipped into this suspension. Fourteen swabs were replaced into their plastic tubes (dry swabs). The ends of the remaining swabs were cut off and half of them placed into bijoux bottles of Amies' transport medium (Difco Laboratories); the other half were placed into a similar container of Stuart's transport medium (Oxoid). All the swabs were left on the open bench for one, two, four, eight, twenty four, forty eight, or ninety six hours. At the appropriate time the swabs were transferred to 1 ml of sterile physiological saline in a bijoux bottle and shaken vigorously for thirty seconds on a bench shaker. Miles and Misra counts[6] were then performed on the resulting suspension on Bordet-Gengou medium and the plates incubated at 37°C for three days before counting.

Table 1 shows the mean viable count of *B pertussis* recovered from the swabs at various times. The counts on the dry swabs were higher for the first four hours than those of the swabs in Stuart's or Amies' media. After four hours the counts fell most rapidly on the swabs in Stuart's medium but less rapidly on the dry swabs. The counts on the swabs in Amies' medium, however, remained high after ninety six hours when the other swabs yielded no growth.

Table 2 shows the decimal reduction times of the viable counts calculated from the linear regression curves over twenty four, forty eight, and ninety six hours. The decimal reduction times were consistently higher in Amies' medium and lower in Stuart's medium.

The results of this study suggest that if a pernasal swab can be transported to the laboratory within four hours transport medium is unnecessary. If the swab is likely to be delayed for more than four hours Amies' transport medium should be used rather than Stuart's transport medium.

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Table 1 *Mean viable counts of B pertussis on pernasal swabs at various intervals after inoculation*

Time after inoculation (hours)	*Transport conditions*		
	Dry	*Stuart's*	*Amies'*
1	$3{\cdot}5 \times 10^6$	$1{\cdot}2 \times 10^6$	$1{\cdot}2 \times 10^6$
2	$2{\cdot}1 \times 10^6$	$3{\cdot}5 \times 10^6$	$6{\cdot}5 \times 10^5$
4	$2{\cdot}3 \times 10^6$	$1{\cdot}3 \times 10^6$	$1{\cdot}5 \times 10^6$
8	$7{\cdot}3 \times 10^4$	$3{\cdot}8 \times 10^4$	$2{\cdot}6 \times 10^5$
24	$3{\cdot}9 \times 10^4$	1×10^2	$1{\cdot}8 \times 10^6$
48	$4{\cdot}1 \times 10^2$	25	$1{\cdot}8 \times 10^6$
96	$0 < 25$	$0 < 25$	$5{\cdot}0 \times 10^5$

Table 2 *Decimal reduction times of viable counts of B pertussis*

Calculated over initial time (hours)	*Transport conditions*		
	Dry	*Stuart's*	*Amies'*
24	9·3	5·1	16·5
48	12·0	7·7	23·0
96			37·6

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Notices

Annual Dermatopathology Course organised by the department of dermatology, University of Glasgow

The 1986 dermatopathology course will take place from Monday March 17 until Friday March 21. This course is designed to meet the needs of both dermatologists and pathologists with an interest in skin pathology. Numbers are limited to 24 to allow individual supervision, and each course participant is issued with a box of 400 carefully chosen dermatopathology slides for individual study throughout the week. The course comprises formal lectures, microscopy sessions, and informal projection sessions.

Further details from: Mrs WE Scott, Administrative Assistant, West of Scotland Committee for Postgraduate Medical Education, The University of Glasgow, Glasgow G12 8QQ.

XIth European Symposium on Hormones and Cell Regulation

The eleventh European symposium on hormones and cell regulation will be held in Ste Odile (near Strasbourg), France, from Monday September 29 to Thursday October 2 1986. Submission of abstracts for poster presentation is invited.

Further details from: Professor JE Dumont, IRIBHN, Campus Erasme, 808 route de Lennik, B-1070 Brussels, Belgium.

First IUIS conference on clinical immunology

A two day conference on clinical immunology will be held in conjunction with the sixth International Congress of Immunology, in Toronto, Canada, from Saturday July 5 to Sunday July 6, 1986. These dates immediately precede the sixth International Congress. The conference will comprise plenary sessions, minisymposia, and a poster session. Among the major topics: receptor antireceptor mediated diseases; new trends in the management of disorders of autoimmunity; immunodeficiency; allergy; immunodiagnostic techniques; and transplantation; and a session concerned with human diseases caused by lymphotropic retroviruses.

Registration and abstract forms may be obtained from: Mr K Charbonneau, National Research Council of Canada, Ottawa, Ont. K1A OR6, Canada.

British Congress of Obstetrics and Gynaecology

The 24th British Congress of Obstetrics and Gynaecology will be held in Cardiff, United Kingdom from Tuesday 15 to Friday 18 April 1986. The scientific programme will comprise main sessions of invited contributions and selected papers; seminars of submitted papers; and subsidiary sessions of posters, films, and videos. A full and varied social programme is also planned.

The preliminary programme, registration, and abstract forms may be obtained from the Congress Office, Royal College of Obstetricians and Gynaecologists, 27 Sussex Place, Regent's Park, London NW1 4RG.

ASSOCIATION OF CLINICAL PATHOLOGISTS

JUNIOR MEMBERSHIP

Junior membership of the Association is available to all trainees in pathology for up to six years after the start of training. The annual subscription is £15 and may be claimed against tax. All junior members receive copies of the *Journal of Clinical Pathology*. Other benefits include membership of the Junior Members' Group and a regular junior members' newsletter; the ACP Newsletter and all other documents regularly sent to full members including the postgraduate education programme.

Junior membership normally leads to full membership of the Association, which represents medical pathologists in hospital practice.

Junior membership is not available to trainees overseas and those on short term training schemes in this country. Requests on an individual basis will be considered.

Apply to: Dr PP Anthony, Education Secretary, Postgraduate Medical School, Barrack Road, Exeter EX2 5DW, Devon.

Courses on:

Pulmonary Pathology (Monday 3 to Wednesday 6 February 1986) at the Brompton Hospital.

Apply to Professor B Corrin, Cardiothoracic Institute, London SW3 6HP.

Refresher Course in Blood Group Serology (Monday 24 to Friday 28 February 1986) at North East Thames Regional Transfusion Centre, Brentwood, Essex.

Apply to Dr JF Harrison, North East Thames Regional Transfusion Centre, Crescent Drive, Brentwood, Essex CM15 8DP

Current Topics in Chemical Pathology (Friday 28 February 1986) at the National Hospital for Nervous Diseases, Queen's Square, London.

Apply to Dr AL Ames, Neath General Hospital, Neath, West Glamorgan SA11 2LO (not later than 21 February, 1986)

Some new titles

The receipt of books is acknowledged, and this listing must be regarded as sufficient return for the courtesy of the sender. Books that appear to be of particular interest will be reviewed as space permits.

IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans. Allyl compounds, Aldehydes, Epoxides and Peroxides. International Agency for Research on Cancer. Vol 36. (Pp 369; Sw fr 70.) World Health Organisation. 1985.

Laboratory Decontamination and Destruction of Carcinogens in Laboratory Wastes; some Aromatic Amines and 4-Nitrobiphenl. IARC Scientific Publications No 64. Ed M Castegnaro *et al.* (Pp 85; £6·95.) World Health Organisation. 1985.

A Colour Atlas of Oral Pathology. KW Lee. (Pp 148; £35.) Wolfe Medical Publications Limited. 1984.

Laser Application to Occlusive Vascular Disease. Ed MW Berns, M Mirhossini. (Pp 154; £22.) Alan R Liss Inc. 1985.