histochemical methods and, therefore, studies addressing differences of protein expression in diseased tissues should try to use this well-established technique if no additional technique such as immune electron microscopy or mRNA-based protocols can be done.

A second major conclusion that may be drawn from Beroukas and colleagues' study is the validity of previously questioned studies by Moore and colleagues,[4] in which knockout mice were used that provided direct evidence against an essential role for aquaporins in lacrimal gland fluid secretion.

*David A Groneberg, Christian Peiser, Axel Fischer

University Hospital Charité, Allergy and Immunology Research Group, Humboldt-University, D-13353 Berlin, Germany (e-mail: david.groneberg@charite.de)

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Life-threatening anaphylaxis after artificial insemination

Sir—Procedures such as artificial insemination have some risks of a pre-existing allergy to drugs included in culture medium.[1,2] Allergy to antibiotics such as penicillin or streptomycin can trigger anaphylaxis, but other components can also provoke fatal symptoms.

A woman aged 32 years with a history of atopic dermatitis developed a severe anaphylactic reaction with itching, generalised urticaria, angioedema, vomiting, asthma, hypotension, and loss of consciousness within 60 min of intracervical artificial insemination with sperm from her husband. She was treated in the accident and emergency department and recovered without further complications. She did not conceive.

After obtaining informed consent, we investigated the patient and ten healthy controls. Human seminal plasma was ruled out because the patient was maintaining normal sexual intercourse with her partner. We did skin prick testing with latex and sperm-washing medium containing human serum albumin (HSA) with negative results; a 6 mm wheal and a 14 mm flare were noted in the patient 15 min after testing with culture medium. Drugs included in that culture medium—some vitamins, penicillin G, and streptomicin—were ruled out after negative skin prick test, in-vitro immunoassays, and double-blinded parenteral challenge. Skin prick test with bovine serum albumin included in the capable medium was also positive, but three standard in-vitro assays for specific IgE detection were negative. A protein-binding IgE of 68 kDa was detected by western blot and inhibited by bovine serum albumin itself, which showed the presence of specific IgE. Further in-vivo and in vitro studies indicated that serum albumin had a high degree of cross-reactivity with serum albumin from different animal species, such as cat, rat, and lamb, but not with HSA. The previous sensitisation to some animals had to be probably required as priming in this anaphylactic episode. She did concieve with HSA in capable medium.

Anaphylactic reactions after artificial insemination are rare. Risk of anaphylaxis includes allergy to seminal components, latex, and drugs, including handling media. Other cases of anaphylactic reactions in artificial insemination procedures have been described, characterised by the presence of cross reactivity with serum albumin from other animals and sensitisation to animals.[3,4]

We suggest enquiry about specific allergies during medical assessment for artificial insemination. Specific testing might be needed in women who have a history of animal allergies. Improved handling during processing of the seminal sample should avoid some new cases in the future.

*V Matheu, M Caloto, M de Barrio, ML Baeza, M Rubio

*Medical Inflammation Research, BMC I11, Lund University, 22184 Lund, Sweden; and Allergy Service, HGU Gregorio Maranon, Madrid, Spain

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SEN viruses and treatment response in chronic hepatitis C virus

Sir—Basil Rigas and colleagues (Dec 8, p 1961)[1] conclude that co-infection with SEN viruses in patients with chronic hepatitis C virus (HCV) might adversely affect the response to treatment with interferon and ribavirin.

This conclusion is based on a study including 31 patients with chronic HCV of whom 12 were co-infected with SEN viruses (five with SEN D, six with SEN H, and one with SEN D and H). Co-infection with SEN viruses was detected in ten of 19 non-responders to treatment, whereas it was seen in two of 12 patients with a sustained virological response. Apart from the small number of cases, several other features of the study that may have led to a premature and perhaps misleading conclusion deserve attention.

First, Rigas and colleagues give no consideration to the higher proportion of patients infected with HCV genotype 1 or 4 in the non-responder group than among the responders (16 of 19 *vs* six of 12). The rate of sustained virological response in HCV genotype 1 is significantly better after 12 months of combination treatment than after 6 months.[2] Given that all 31 patients studied received 6 months' treatment with interferon plus ribavirin (ie, suboptimum for HCV genotype 1 or 4), the segregation into responders and non-responders will be determined primarily by the HCV genotype, rather than co-infection with SEN viruses.

Second, the cohort of 31 patients studied by Rigas and colleagues included treatment-naive patients and those in whom previous antiviral treatment failed. The distribution of these cases in the responder and non-responder groups is unclear. The baseline HCV RNA titre, which affects the response to combination treatment,[2] is also not shown for all patients.

Third, the SEN viruses are, characterised by a high degree of genomic variability, similar to their relative the TT virus. One of the