PostScript

LETTERS

Disseminated sepsis due to a Panton-Valentine leukocidin producing strain of community acquired meticillin resistant *Staphylococcus aureus* and use of intravenous immunoglobulin therapy

Although unusual in the UK to date, sepsis due to community acquired meticillin resistant *Staphylococcus aureus* (CA-MRSA) is an increasing concern globally. CA-MRSA strains typically produce the exotoxin Panton-Valentine leukocidin (PVL), a virulence factor associated with severe, rapidly progressive, systemic disease including soft tissue infections and necrotising pneumonia, which has a mortality rate as high as 75%.[1 2]

A 14 year old boy presented with septicaemia and disseminated foci of infection including necrotising pneumonia, septic arthritis of the left knee, and deep vein thrombosis of the left leg. Anticoagulants and empirical antibiotics (intravenous cefuroxime, flucloxacillin, and metronidazole) were commenced. At 48 hours he required intensive care for multi-system organ failure and clindamycin was added. MRSA was isolated from blood cultures, a knee aspirate, and endotracheal secretions. Its origin in the community, the clinical picture, and antibiogram suggested that the MRSA was likely to be a PVL producing CA-MRSA. This was later confirmed by the staphylococcal reference laboratory in London. Antibiotics were changed to linezolid in combination with rifampicin (to which the isolate was sensitive) and the knee was washed out on three occasions. Despite this at 7 days he had failed to improve clinically.

A French study reported the presence of staphylococcal leukocidin specific antibodies that inhibited the cytopathic effects of PVL in vitro in a commercial intravenous immunoglobulin (IVIG) preparation.[3] There is no reported use in human disease. IVIG has been used for its anti-toxin effects in staphylococcal toxic shock syndrome (TSS) and other causes of septic shock.[4 5]

It was felt at this point that the potential benefit outweighed the risk of adverse events, so IVIG at a dose that might be used in TSS was administered (1 g/kg for two days.) This was followed by clinical improvement and a sustained fall in inflammatory markers. There were no immediate adverse effects. The patient was discharged to the ward five days later and has since been discharged home.

Although rare, this case highlights the importance of considering CA-MRSA in cases with similar presentations, particularly so when disease is rapidly progressive, to enable prompt, appropriate antimicrobial therapy.

It is difficult to determine the extent to which the IVIG contributed to his improvement but given the mortality rate of this condition, the findings in the study cited above, and the possible beneficial effect of IVIG in this case, it is a therapeutic option which should be considered in similar cases in the future.

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Young people: lost in transition

We wish to welcome the recent strategy document on participation of young people in RCPCH activities.[1] This document, along with the NSF,[2] reminds paediatric health care providers to not forget the 13–15% of the population who are growing up and out of paediatrics and moving towards and into adult services. Unfortunately adolescents frequently fall out of the age related inclusion criteria of the former, yet still fulfil the exclusion criteria of the latter. Compounding this problem are the limited training opportunities in adolescent health in the UK. In a survey of staff at Birmingham Children's Hospital, 60% of respondents reported no such training.[3] Unfortunately, published UK based literature is of little help to portray the message that adolescent health is important. An audit of general paediatric textbooks (n = 12) available to undergraduate medical students in Birmingham identified only five with a chapter dedicated to adolescent health, representing 2% of the total page count. Furthermore, a review of the 2004 editions of this journal revealed only 4% of original articles and 8% of reviews which specifically addressed adolescent health issues compared to 40% and 32% (respectively) which addressed fetal/neonatal issues.

We are confident that young people who will now participate in future RCPCH activities, like so many of their surveyed counterparts in the UK have done already,[4] will join us in calling for the development of adolescent friendly health services staffed by professionals who ''understand'' and are trained to look after them. The current work of the Royal Colleges Adolescent Implementation Group is welcomed as an important driver in this area. Perhaps the editorial board could add their support and change the name of this journal to include young people, rather than limit it to children and neonates! Just as messages are important to today's young people—they are also important to the development of adolescent health!

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