

INTERNATIONAL ABSTRACTS

RESTING ENERGY EXPENDITURE IN SEVERELY BURNED CHILDREN: ANALYSIS OF AGREEMENT BETWEEN INDIRECT CALORIMETRY AND PREDICTION EQUATIONS USING THE BLAND-ALTMAN METHOD

In order to optimize nutritional support for severely burned children it is essential to know their resting energy expenditure (REE) as it is vital to avoid the consequences of malnutrition or overfeeding. However, the accuracy of REE predictive equations is not always reliable, and this study from the USA tests the hypothesis that REE estimates vary significantly from measured REE (MREE) in a population of severely burned children and are therefore not accurate for calculating nutritional requirements. A cohort of 91 burned children (age 3 to 18 yr) was considered. REE was measured by indirect calorimetry (MREE) at the height of the metabolic response and compared with predictive equations, and agreement between indirect calorimetry and predicted equations was assessed using the Bland-Altman method. It was found that in the entire cohort, predicted REE from the three equations used was significantly lower than MREE. The three equations were not significantly different from each other. It is therefore concluded that, lacking more accurate predictive equations, indirect calorimetry methods are recommended for calculating REE in severely burned children.

Suman O.E., Mlcak R.P., Chinkles D.L.
Burns, 32: 335-42, 2006

SUSCEPTIBILITY PATTERNS AND CROSS-RESISTANCE OF ANTIBIOTICS AGAINST PSEUDOMONAS AERUGINOSA ISOLATED FROM BURN PATIENTS IN THE SOUTH OF IRAN

Pseudomonas aeruginosa is a frequent cause of infection in burn patients, and the rapid acquisition of multi-drug resistance is responsible for high morbidity and mortality in burn centres. This study examined ten antibiotics used in a burns centre in Iran. MICs for imipenem, meropenem, cefepime, ceftazidime, cefoperazone/sulbactam, ticarcillin/clavulanate, piperacillin/tazobactam, ciprofloxacin, tobramycin, and amikacin were determined by the *E*-test method. Imipenem and meropenem were the most active *in vitro* antibacterial agents followed by ciprofloxacin, while ticarcillin/clavulanate was the least active. Nearly all of the resistant isolates showed cross-resistance to cefepime. Most of the imipenem and meropenem resistant isolates showed cross-resistance to all the other antibiotics. Metallo- β -lactamase was not detected in any of the isolates. Nearly all of the antibiotic-resistant isolates showed cross-resistance to the majority of penicillins and cephalosporins with or without β -lactamase inhibitors, from which ticarcillin/clavulanate demonstrated this phenomenon at the highest level.

Japoni A., Alborzi A., Kalani M., Nasiri J., Hayati M., Farshad S.
Burns, 32: 343-7, 2008

EVALUATION, EPIDEMIOLOGY AND STANDARDS IN PAEDIATRIC BURNS

Between 1988 and 2006 we treated approximately 20,000 burn cases with various complex conditions in our burns centre in Romania. Surgical and intensive care strategies were applied according to the particularities of each case. Over the period we succeeded in improving outcome parameters. Our approach in extensive burns therapy consists of a combination of skin transplants with plastic surgery techniques, with the therapeutic procedures being influenced by intrinsic and extrinsic factors. We present the various techniques we used. The results of our centre, compared to the American Burns Association's National Burns Repository 2005, show many similarities in the epidemiological parameters (age, sex, incidence, aetiology, place of occurrence, localization, complications rate, associated pathologies, general mortality, causes of death). Our considerable experience in burns treatment - we are one of the few centres in the world to have treated 20,000 burn cases with one and the same team - puts us in an almost unique position, particularly regarding paediatric burns.

Enescu D., Enescu M., Nedelcu I., Raluca A., Ionita D., Constantinescu G.

Annals of Plastic Surgery and Reconstructive Microsurgery, 4: 20-31, 2006

COMPLICATIONS OF SEVERE THERMAL INJURIES

The aim of this paper from Romania is to introduce a new concept in assessing clinically severe thermal injuries, especially during the septic stage, based on the authors' experience in assessing the complications from severe thermal injuries and the incidence of complications in the post-burn shock and septic stages. The most frequent complications are described. Severe thermal injuries are also presented on the basis of their grouping and evolution within the systemic inflammatory response syndrome, i.e. sepsis, severe sepsis, septic shock, and multi-organ dysfunction syndrome.

Corbeai C., Purcaru F., Nica M.D.

Annals of Plastic Surgery and Reconstructive Microsurgery, 4: 32-37, 2006

UN PROCÉDE ORIGINAL POUR UNE PRISE D'EMPREINTE FACIALE RAPIDE EN CENTRE DE TRAITEMENT DES BRULÉS

This paper (in French) from France describes a new procedure for making face masks for burns patients in a burns centre. It is important in such cases to proceed rapidly to apply compression to the burned face. The various steps in the procedure are documented with numerous colour photos. This procedure saves time compared to others and is simple to use in a burns centre.

Girbon J.P.

Brûlures, 6: 154-7, 2006