

# GUEST EDITORIAL

## ANAPHYLAXIS



It has been my pleasure to edit this, the last edition of the journal for 2008. To all the contributing authors, thank you for your time and expertise.

We discuss anaphylaxis in this edition, which is a condition that often causes anxiety for the health care worker.

The algorithm from the Resuscitation Council (p. 171) gives a practical and simple approach to the treatment of severe anaphylaxis. This can be displayed in all emergency units as well as immunotherapy clinics or any facility undertaking skin testing, where there may be a risk for anaphylaxis.

Dr Sharon Kling has written a fascinating report on anaphylaxis in a paediatric ICU. We leave you to make up your mind whether or not you agree that this was indeed anaphylaxis. If you think it was, it would be the youngest case described in the literature. Mail her and let us know what you think.

Dr Chris Oettle gives us insight into the difficult decisions facing an anaesthetist wishing to prevent anaphylaxis. Her patient, a 4-year-old child with cutaneous mastocytosis, was scheduled for surgery. How does one proceed with elective surgery, in a patient who has an increased risk of mast-cell degranulation? This article may be read in conjunction with Dr Stephanie Fischer's article<sup>1</sup> published in *Current Allergy & Clinical Immunology* last year.

Thank you to Dr Shaunagh Emanuel for the superb cartoons in the story about Angelina. Enjoy the whimsical presentation of this extremely complicated patient. I am happy to report that the patient recovered well from her hysterectomy, and received only IV and oral paracetamol as analgesia. She is back at the convent, where she works as a social worker. She is currently well on her awfully dull diet.

Dr Dave Knight and Prof Mohamed Jeebay have written an excellent account on work-related anaphylaxis, and have outlined the difficulties one has in making this diagnosis. Fortunately criteria exist now to make a clinical diagnosis of anaphylaxis, but there is still no universal definition of work-related anaphylaxis. When discussing the confirmation of the diagnosis, they mention serum total tryptase. I would like to briefly elaborate.

You will find it written that anaphylaxis refers to a life-threatening clinical syndrome following mast-cell degranulation. Tryptase is the most abundant protein found in mast cells.<sup>2,3</sup> Upon mast-cell degranulation, tryptase (along with histamine and other mediators) is released into the blood. Tryptase levels will peak at 1 hour, and remain elevated in peripheral blood for 4-6 hours. It is easy to measure, and is a sensitive and specific marker of mast-cell degranulation. Ideally 2-5 ml of clotted blood is collected within the first hour, 2-3 hours later and again after 12-24 hours for a baseline specimen. Transiently increased levels of mature tryptase serve as a marker of anaphylaxis. A single postmortem specimen would aid in confirming the diagnosis of anaphylaxis, as tryptase is stable in postmortem blood for

24 hours. (Tryptase may also be elevated in certain haematological neoplasms and in systemic mastocytosis.)<sup>2,3</sup>

In Skin focus, Dr Sue Jessop discusses acute urticaria in infancy. Remember that urticaria is often present in anaphylaxis, and may be the first clinical sign to manifest.

In Allergies in the workplace, Dr Fatemah Thawer-Esmail describes a fascinating case of urticaria in an underwater diver. There are many possible triggers for urticaria in a diver, and once identified, one is left with the concern of this progressing to angio-oedema while underwater, as well as the problem of taking medication that may be sedating while working in a hazardous environment.

I hope you enjoy this last edition of the journal for 2008, and I wish you all a great 2009. Enjoy the immune tree (courtesy of Dr Shaunagh Emanuel).

I look forward to seeing you at the ALLSA Congress in July next year in Durban – one of the main focuses is anaphylaxis.

### Di Hawarden

Guest Editor

1. Fischer S. Anaphylaxis in anaesthesia and critical care. *Current Allergy & Clinical Immunology* 2007; **20**: 136-139.
2. Caughey GH. Tryptase genetics and anaphylaxis. *J Allergy Clin Immunol* 2006; **117**: 1411-1414.
3. Schwartz LB. Mast cells and basophils. *Clin Allergy Immunol* 2002; **16**: 3-42.

