

Armoured brain

In describing a 10-month-old boy with bilateral calcified subdural hematomas, Mohammed Al Wohaibi and associates¹ report that the hematomas, which occurred after replacement shunting at 4 months of age, calcified intensely within a period of 6 months. They discuss trauma, as well as infection and overshunting, as a possible cause of subdural hemorrhages in general, but state that the mechanism for the underlying calcifications remains unclear.

The possibility of shaken baby syndrome should be considered in this case. A baby with special needs, such as this infant, might well be an increased burden and source of stress for caregivers. Two recent reports attest to a lack of recognition by physicians of occult head injury.^{2,3} The babies may present with nonspecific symptoms, and the results of general and neurological examinations at the time of presentation may be normal. However, consideration of this diagnosis might prevent possible further injury or death.

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References

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2. Jenny C, Hymel KP, Ritzen A, Reinert SE, Hay TC. Analysis of missed cases of abusive head trauma. *JAMA* 1999;281(7):621-2.
3. Rubin DM, Christian CW, Bilaniuk LT, Zazyczny KA, Durbin DR. Occult head injury in high-risk abused children. *Pediatrics* 2003;111(6):1382-6.

[The authors respond:]

We appreciate the interest of Susan Bennett and her colleagues, and agree that child abuse must be considered as a cause of subdural hematoma in the patient we described. However, in this *Clinical Vistas* article,¹ it was not

our intention to review the case (or the topic of subdural hematoma) in detail. Rather, our purpose was to illustrate the unusual phenomenon of dense calcification within the membranes of a chronic subdural hematoma.

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Reference

1. Al Wohaibi M, Russell N, Al Ferayan A. A baby with an armoured brain. *CMAJ* 2003;169(1):46-7.

Pilot study of the Defining Issues Test

We have performed a preliminary study¹ to examine whether the moral reasoning skills of medical students and residents change over the course of their training. We provide here some data for comparison with the results of Johane Patenaude and associates² and the reports cited in their paper. Our group used the Defining Issues Test, version 2 (DIT-

2),^{3,4} a short, validated, self-administered test for measuring such skills. The instrument was administered in 2001 to all first- and fourth-year medical students at the University of Manitoba, as well as to a random sample of first- and final-year medical residents. Confidentiality was assured by the use of unique identification numbers. Comparisons between groups and the data analysis were conducted by the Center for the Study of Ethical Development at the University of Minnesota, Minneapolis, which developed the DIT-2. The centre has shown that higher scores are linked to positive valuing of democratic ideals and to community and civic responsibility.⁵ In addition, orthopedic surgeons with higher scores had a significantly lower risk of malpractice claims.⁶

As was the case in the study by Patenaude and associates,² there appeared to be little difference in moral reasoning skills between our first- and fourth-year medical students and those in the postgraduate years (Table 1), despite a generally well-rated ethics education program presented in the first 2 years of both the undergraduate and the postgraduate curricula. The DIT scores of the medical students and the residents

Table 1: Mean scores on Defining Issues Test, version 2, for University of Manitoba medical students and residents (with reference scores)

Subject group	No. of respondents	Mean score (and SD)*
University of Manitoba Faculty of Medicine		
First-year students	75	39.4 NA
Fourth-year students	57	40.8 NA
First-year residents	27	45.6 NA
Final-year residents	6	44.9 NA
Reference groups†		
Ninth-grade students	47	20.5 (9.7)
Freshman college students	35	30.6 (14.4)
Senior college students	65	40.4 (13.6)
Graduate students and students in professional streams	53	53.3 (11.5)

Note: SD = standard deviation, NA = not available.

*Further analysis of the data, to be performed by the Center for the Study of Ethical Development, Minneapolis, is not yet available.

†Reference values (for US subjects) are from the Center for the Study of Ethical Development.⁵