

POINTS OF VIEW

BY THE BY:

Tap, Tap

There wasn't much altruism in my choice. It was the early 1960s and I'd been offered three grants from different universities. Two were of £250 each, per annum. The third was of £500. Naturally, I went for the largest which was funded by the old Northern Ireland Hospitals Authority. What work was involved was of secondary importance to a cash-strapped but optimistic student. Learning disability or mental subnormality as it was called in those far-off days - I knew absolutely nothing about it except that some lecturer had described a feral boy living in woods near Aveyron. Unfortunately, I couldn't remember the point of the story.

My first day in a hospital for children and adults with a learning disability was almost my last. Five ladies and myself were being shown round a ward by the Resident Medical Superintendent, Dr. T. W. H. Weir, a courteous and modest gentleman in a profession not particularly noted for its modesty. In drop-side cots were four or five infants with progressive hydrocephalus. With some shame, and apologetically, I have to admit I was shocked. Great, glistening domes, veins stretched thin and taut. The ladies weren't in the least fazed. Bending over a child, one murmured "What beautiful eyes, what beautiful eyelashes". First lesson learned: always look for the good points, the strong points.

In the Queen's University clinical psychology course, we had to join medical students for neuroanatomy lectures and practicals. I read and haphazardly understood early works by Dandy, Blackfan and Weed - an odd set of names - and Dorothy Russell's (1966) book on hydrocephalus, all now a distant and very hazy memory. With the development of newer and more effective shunts, of course, the outlook for children is so much better now.

*But I became intrigued by the question of how youngsters were treated in days gone by and decided to skim through nineteenth century journals, including the Lancet and some Irish Journals. Needless to say, some **adults** in whom there had presumably been spontaneous arrest of progressive hydrocephalus became objects of great curiosity. Perhaps the best known in England was a man called Cardinal who survived till his late twenties. The circumference of his head was 33½ inches; he could "totter" a few feet at most before having to rest; and there was "something childish and irritable in his manner". John Elliotson, professor of medicine and senior physician at University College, referred to him contemptuously as a "ninny". In Elgin, Scotland, there lived a man called James Scott. Marginally under four feet tall, his head measured 27½ inches in circumference. He never walked and it's obvious from the literature that he had a moderate to severe learning disability. He died at the age of forty-one.*

As for treatment, cautious doctors resorted to conventional and patently useless measures: mercury, sinapisms (mustard plasters), squills which acted as both diuretic and expectorant, blisters and the like. Of the more drastic approaches, two stand out: puncturing (or tapping), and compression. The reasoning behind both was straightforward. Because, from whatever source, fluid

built up in the brain as evidenced by enlargement of the skull, tapping seemed an obvious treatment. If more fluid accumulated, why not tap again? Compression involved tying bandages tightly round the head.

Both measures aroused a good deal of controversy. Some doctors claimed that in ninety-nine cases out of a hundred, tapping was bound to fail. Others published case histories proving that it did work. A Dr. T. J. Conquest had an article - accepted by the Lancet - which would seem to our eyes to be a follow-up study. He tapped the heads of nineteen children over a period of approximately ten years. Usually, the patient was sitting on the lap of a parent or of an assistant.

The operation consists in passing a small and delicately constructed trocar (a surgical perforator used with a cannula) into one of the lateral ventricles, and drawing off as much of the fluid as the powers of the constitution will admit of. The most eligible spot at which the trocar can be introduced is in the course of the coronal suture, about midway between the crista-galli process of the ethmoid bone, and the anterior fontanelle . . . The instrument usually penetrates about two inches, and in most cases the serum (that is, CSF) has been colourless . . . the head, which should always be steadily compressed by an assistant during the operation, may be strapped with adhesive plaster that it may retain its diminished size . . . (1838).

*Conquest claimed that although nine youngsters died after the operation, the remaining ten survived and were doing well. Several had needed only a single tap: the largest number of punctures was five and this occurred in a single case. The editor of a medical journal hailed Conquest's achievements as the most important in many years. Others had their doubts. True, Conquest always performed the operation in front of colleagues or before an audience of medical students. True, no child had died **during** the operation. But there was some doubt about a couple of testimonials: they came from distant parts and the signatories claimed they had each seen one of Conquest's patients in robust health years after tapping. The most surprising feature of the article was that Conquest assumed his little charges were alive and well unless he had heard otherwise for definite.*

Still, other practitioners claimed single-case successes. But many more cases were reported as failures. The largest number of taps I came across for one child was twenty, involving over 200 ounces of "serum" (i.e. CSF) which had been drawn off.

Looking at Conquest's cases with a jaundiced eye was a Dr. Barnard of Bedford, one of the proponents of compression. Working with a child aged one year six months, whose head was "exceedingly large" he had:

. . . the head shaved perfectly clean; I then applied broad straps of adhesive plaster completely round the head from before backward, and cross straps from one side to the other, so as effectively to support the parietes of the cranium. I ordered the whole head to be kept constantly covered with linen dipped in cold water; and that the child should take no other medicine than a little castor oil . . . (the) good effects were evident in less than a week; the little patient could move its head much better; the strabismus had disappeared . . . In a fortnight the size of the head was evidently lessened . . . the child (is) in every respect healthy . . . he will completely recover. (1823-24).

Sceptics were quick to react. One stinging reviewer in a medical journal, a Dr. Johnson, said that while not accusing Barnard of telling lies ("God forbid!"), he just couldn't believe a word he said about the allegedly beneficial effects. Worse was to come when Barnard complained in letters to the Lancet that his pioneering work was being maligned. In a tart reply the editor pointed out, with chapter and verse, that compression had been performed in cases of hydrocephalus at least as early as the mid seventeenth century.

I find it difficult to believe, and I'm a complete layman in these matters, that either method really had any merit. In front of me I have the photograph of a pretty girl aged about twelve. Just looking at her no-one would detect that she has a well-functioning shunt. No-one would guess that there ever had been anything amiss. Not in the least handicapped in any respect, she enjoys life to the full. I hope the days of glistening globes are over.

Acknowledgements

A big thank-you to Mary Drain who helped me in preparing this script.

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