Compliance with growth hormone treatment—are they getting it?

14. Where do you get your needles and syringes from?
   The hospital
   Your general practitioner
   Purchased

15. The hardest thing about the injection is
   Mixing
   Drawing up
   Putting the needle in

16. How often do you get a prescription from your doctor for the growth hormone?
   Every week
   Every 2 weeks
   Every 3 weeks
   Monthly
   Longer

17. Do you use a sharps bin to dispose of the needles and syringes?
   Yes
   No

18. If you were going on holiday would you?
   Take the injections as normal
   Have a break from the injections
   Use up the vial then stop

19. Would you like any further help or information?
   Yes
   No

20. (a) Do you belong to a patient support group?
    Yes
    No

   (b) If yes, which one?

21. How many marks on the syringe do you inject each day?

22. Would you like to make any further comments?

NO in pyloric stenosis
Nitric oxide (NO) is clearly a very ‘in’ molecule in physiological circles (see Archivist 1992:934). It causes relaxation of gut muscles in animals as well as being a strong vasodilator. The relaxation of the smooth muscle of the gastrointestinal tract is brought about by the action of non-adrenergic, non-cholinergic (NANC) nerves. Until recently it was thought that the principal mediator of NANC controlled inhibition was vasoactive intestinal polypeptide (VIP) but the evidence now available makes it likely that the mediator is NO.¹

The enzyme NADPH diaphorase, which can be detected histochemically, is identical to NO synthase. Workers in Brussels (Jean-Marie Vanderwinden and colleagues, New England Journal of Medicine 1992;327:511–5) have used histochemical and immunohistochemical techniques to examine pyloric tissue from nine babies with hypertrophic pyloric stenosis and seven controls. Normal tissue showed NADPH diaphorase activity in the nerve fibres of both the circular and longitudinal muscle and in the nerves of the myenteric plexus. In pyloric stenosis, however, the enzyme was absent from the nerves of the circular muscle although still present in the longitudinal muscle and in the myenteric plexus. The nerves of the circular muscle were also morphologically abnormal.

Babies with pyloric stenosis, therefore, lack the enzyme (NO synthase) necessary for the production of NO in the nerves of the circular muscle of the pylorus. This may explain the inability of the pyloric muscle to relax and the work raises the possibility that an effective medical treatment for pyloric stenosis could be developed.

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