Desmopressin for bedwetting

Str,—The article by Evans and Meadow cast further light on the ongoing controversy over the causes of nocturnal enuresis in children.1 While some stress the importance of small bladder capacity2 and others the importance of nocturnal polyuria caused by deficient arginine vasopressin (AVP) secretion,3 many take the compromise of both factors playing their part.4 In this paper, enuretics with desmopressin had higher nocturnal volumes (345 ml) and lower nocturnal urinary AVP concentrations (0.9) compared with non-responders (265 and 2.8 respectively). While these differences were insignificant for the small numbers of children involved (eight and 10 responders respectively) quite clearly we have there that did appear to be a 'trend towards desmopressin response enuretics having lower AVP concentrations and larger volumes of dilute urine at night'. It could well be that significant differences are found with larger numbers of children. It was also interesting that the age of desmopressin responders who appeared to produce more dilute urine was 12 compared with only 9 in the others. This supports our own feeling that the cause of nocturnal enuresis is more likely to be lack of nocturnal AVP secretion in older children and adults and smaller function bladder capacity in those younger. A lot of the work addressed to nocturnal enuretics who are AVP deficient was done on older children and adults.2,5 There was therefore no real support for Evans and Meadow's suggestion that 'it is possible that the diurnal variations in AVP are less well developed in younger children'.

Recently we did a short study of nocturnal enuresis in 5 year olds to see if the enuretics produced more dilute urine overnight. At the routine medical on joining school, children were asked to bring along the first urine specimen of the day for measurement of osmolality. (This study was passed by our local ethics committee.) Fifty five children produced samples: 46 who were virtually dry and nine who wet the bed most nights. Mean (SD) osmolality of those who were dry was 801 (180) and of the enuretics 760 (264) mOsm/kg (not significant). While it is possible that early morning osmolality may not be fully representative of total overnight urine production if the child has previously wet the bed, we feel this study does indicate that enuretics in young children is unlikely to be due to nocturnal polyuria. This type of developmental nocturnal enuresis is probably mainly due to low functional bladder capacity at night. In studies of nocturnal enuresis a firm distinction should be made between such children with developmental enuresis and older children and adults.6

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6 Letters to the Editor.