Neonatology—then and now (C H M Walker)

Vitamin K (1961)

On real and apparent external bleeding in the newborn

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The late WS Craig records the anatomical site of bleeding in 345 infants seen over a period of 11 years—a considerable clerical task made easier today by the use of computers and provided the initial observations and recordings are accurate! The most common site was gastrointestinal (155), followed by cutaneous and subcutaneous (96), cord/umbilicus (26), and haematuria (23). There were fewer than 20 cases each of superficial trauma, haemoptosis, bucconasopharyngeal bleeding, and after circumcision. Seventy four babies had bleeding from more than one site, five of which bled from three sites.

The principal interest in this paper today is the reference made to the routine use of vitamin K. Despite enthusiastic claims by others of the 'virtual disappearance of haemorrhagic disease' with this treatment Professor Craig remained unconvinced. He found evidence of coagulation defect in only 24 of his 345 cases and among the 52 deaths haemorrhage was the primary cause in only five.

He agreed with Wintrobe (1951) in thinking that the condition was self limited and argued that:

'If coagulation defect is the only aetiological operating factor it is difficult to understand why simultaneous bleedings in multiple sites should not be of commoner occurrence (Quick, 1942)'.

He finishes with the comment:

'Reasons are advanced for questioning the value of vitamin K therapy in the prophylactic and curative treatment of primary intrinsic gastrointestinal haemorrhage of the newborn'.

Today The debate about giving every newborn baby vitamin K continues. This may in part be due to the varying incidence and severity of vitamin K dependent haemorrhage from place to place in the United Kingdom. My personal experience led me to resist this suggestion as over a period of at least 10 years I saw only one or two cases of significant vitamin K dependent haemorrhage per year with no deaths.

This has not been the experience in other parts of the United Kingdom, however, so it is now usually recommended that all babies are given routine treatment, especially as vitamin K₁ can now be given orally (though with slightly less assurance of bioavailability). An accept-

able compromise has been suggested by Tripp and McNinch.¹

'For reasons of acceptability to parents, safety, convenience, and cost we currently use 1 mg oral dose of vitamin K₁ for routine prophylaxis and continue to use intramuscular prophylaxis in infants at special risk from HDN [haemorrhagic disease of the newborn]. . . . We have now used this policy in some 25 000 babies and have not seen any further cases of HDN'.

While this is very gratifying, I am not alone in wondering why this has become necessary. Surely our efforts should be directed towards finding the cause of the deficiency and assessing the potential of preventive antenatal treatment.

Reference

- ¹ Tripp JH, McNinch AW. Haemorrhagic disease and vitamin K. Arch Dis Child 1987;62:436–7.

The late WS Craig, Fellow of the London and Edinburgh Colleges of Physicians and of the Royal Society of Edinburgh, first graduated as a naval architect in 1924. Dissatisfied with his work in a Glasgow shipyard he turned to medicine, graduating in Edinburgh in 1930. His calibre was already manifest in that he had been Buchanan Scholar and James Thomson medallist and soon became assistant to Professor Charles McNeil in the newly formed Edinburgh University Department of Child Life and Health. Income from such a post in those days was miniscule and he found it necessary to move for financial reasons, taking up a post in the Ministry of Health. He worked there for 10 years but always maintained a close contact and interest in hospital paediatrics, eventually becoming the first Professor of Paediatrics and Child Health, University of Leeds in 1946. In the same year his book *Child and Adolescent Life in Health and Disease* was published. In 1952 he started one of the earliest special care baby units in Leeds Maternity Hospital and he is probably best known today for his book *Care of the Newly Born Infant* (1956) the first four editions of which he produced and which, in updated form, is still a standard on the subject today. He has been described to me by one who knew him well as a fine clinician and administrator who sometimes showed 'a fair degree of cussedness' and who had difficulty in being patient with those who showed a lack of commonsense. He was, however, 'a man of powerful virtues—always a memorable man'.