

E E Mayne (-)

President of the Ulster Medical Society

2003–04

Presidential Opening Address

Ulster Medical Society

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THE GENDER TRAP

PRÉCIS

Dr Mayne's talk began with music from Gilbert and Sullivan's *Mercado*. She identified the subject of this music as being the three recent female presidents. She admitted that unlike the other two she was retired and her comments would mostly be reflective. The title of her talk was 'The Gender Trap' and she explained that it could be divided into three parts—the Subjective, the Definitive and the Predictive.

THE SUBJECTIVE

Dr Mayne traced her career path and described her initial intention of reading history at Queen's. However on a visit to the Royal Victoria Hospital she met the matron Florence Elliott and discussed the possibility of nursing. She was advised that she was too young and that she should "go and find out what life is about first". She followed this advice and was challenged by her husband-to-be "why not medicine?" The following year she was admitted to Queen's to study medicine. As a student, the cells of the bone marrow fascinated her but she found them less stimulating when working in the labs! It was when research came her way that she was convinced of her career path. She paid tribute to those doctors who had been formative in her career development. Without the "two Johns" i.e. Professor John Bridges and Dr John Weaver the MD would not have been written. Others important to her were Dr Nelson, the father of haematology in Northern Ireland, the late Dr Desmond Montgomery and Miss Florence Elliott who had become a great friend.

THE DEFINITIVE

In any list of X-linked recessive diseases you will find haemophilia and Christmas disease near the top. Dr Mayne traced the history of the management of haemophilia in Northern Ireland and began by paying tribute to the MLSOs.

Professor GIC Ingram traced the mutation back that causes haemophilia back to an early period of

evolution and the condition has been recognised in both dogs and horses. Since then, many other mutations have been found. The most famous family with haemophilia was Queen Victoria's and it would appear that her carrier status arose from a spontaneous mutation

She was responsible for 10 haemophiliacs in three generations. The most famous descendant was her grandson Tsar Alexis who had fixed flexion deformity from recurrent haemarthroses. Dr Mayne mused on the precipitating factors for acute bleeds in severe haemophilia. Acute bleeds seem to occur at times of anxiety and excitement.

Two observations may shed light on this. The first is that it is recognised that in the treatment of coronary thrombosis the bleeding risk is greatest when treatment is aimed at two different clotting pathways. The same thing occurs when severe haemophiliacs are given even the tiniest dose of heparin in hepsal.

The second observation was in a young woman post-partum who had a bleeding diathesis which was not DIC. She was found to have massive levels of endogenous heparin, which had been released from mast cells following an aspiration pneumonia. Is it possible that in times of stress haemophiliacs release small amounts of endogenous heparin which result in the spontaneous bleeds?

The arrival of Factor VIII concentrates led to the glorious period in the 1970s. Then came the disasters of Hepatitis B, Hepatitis C. But they palled after the pandemic of HIV. At this time Dr Mayne sat on the Committee on the Safety of Medicine (CSM). She was appointed as their expert witness in the litigation cases brought by families of patients who contracted Hepatitis and HIV. From this came both compensation and the McFarland Trust that was set up to support families of those suffering hardship and to protect the children's education if one or both parents died.

Dr Mayne recalled a conversation with the late Professor Gary Love who asked her what her abiding memory would be of clinical medicine. He was most surprised when she replied that it was the struggle to find in-patient hospital beds for haemophiliacs. There were not always welcome partly because of the associated blood borne infections but mainly because they had become very institutionalised as a result of hundreds of hospital visits, had their own quirky ways and were often hard to manage.

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THE PREDICTIVE

It would be nice to get rid of haemophilia. The prospect of this was brought closer in 1981 when the factor VIII gene was cloned. However, it is the application of this discovery that has been more challenging. Louis Pasteur explained that making a discovery is good but for the scientist—"his cup of joy is overfull when the results of his studies immediately find practical application".

There have been problems with vectors to transfer the gene and when the transfer is successful the body appears to produce a neutralising antibody. At present all trials have been stopped.

However, the future is bright. Dr Mayne illustrated this by contrasting the experience of one woman growing up as part of a haemophilia family and now as mother of three severely affected boys. They are on prophylactic recombinant factor VIII and have no deformities. She says the life of her own family is so much better than that of her siblings.