ANALYSIS OF AMPUTATIONS DUE TO CIVIL DISTURBANCE IN BELFAST FROM 1969 TO 1975

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THIS article describes the contribution of civil disturbance injuries to the amputation rate since the onset of the troubles in Northern Ireland in August, 1969.

PATIENTS AND METHODS

All patients undergoing amputation at the Royal Victoria Hospital from August, 1969 to July, 1975 have been included. The 286 amputations were performed by the casualty, general, orthopaedic and vascular surgeons. They were divided into minor and major; minor amputations being the loss of one or more digits and major amputations those at a more proximal level. The causes were classified as civil disturbance, accident and peripheral vascular disease.

RESULTS

Approximately three-quarters of all amputations occurred in males; 53 per cent followed peripheral vascular disease, 31 per cent accidents at work and on the roads and 16 per cent bomb blasts and gunshot wounds. It was particularly in the over 60 age group that peripheral vascular disease predominated, being responsible for 115 of the 136 amputations, and approximately 70 per cent were above the knee.

There were 14 men and 12 women who had bilateral lower limb amputations. Peripheral vascular disease accounted for 15, bomb blasts for eight and accidents for three. One lady had two legs and one arm amputated and one man had an arm and a leg amputated following exposure to bomb blast.

Bomb blasts resulted in major upper limb amputations to eleven men and two women, in contrast to five from accidents and one from peripheral vascular disease. Upper limb amputations dominated the under 30 age group, while most lower limb amputations occurred in the older age group.

Minor amputations accounted for 40 per cent of the total, being commoner in males because of the high incidence of work accidents and peripheral vascular disease. Bomb blasts and gunshot wounds played little part in minor amputations and were responsible for only seven of the 116 performed.

There were 36 hospital deaths in patients undergoing amputation for peripheral vascular disease. Multiple injuries accounted for most other deaths, five being due to bomb blasts, four to accidents and one to gunshot wounds.

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DISCUSSION

Civil disturbance in the form of bomb blasts and gunshot wounds has contributed significantly to amputations in Northern Ireland since 1969. It has affected all age groups due to the random placing of bombs and has more than doubled the major amputation rate due to trauma. Many of the bomb blast victims sustained multiple injuries of all viscera, thorax and head as well as their limb injuries. Many were found to have traumatic amputations on admission which determined the subsequent level of amputation. Gunshot wounds caused less generalised limb damage, major amputation being necessary only because of major vessel injury. Most amputations following road traffic accidents were preceded by severe compound long bone fractures. Road traffic accidents and peripheral vascular disease more commonly involved the lower limbs, whereas bomb blasts involved both upper and lower limbs. Mortality was generally due to concurrent disease in the peripheral vascular disease group, and multiple injuries in the accident and bomb blast group.

SUMMARY

During the last six years civil disturbance in Belfast has contributed 24 per cent of the 170 major amputations at the Royal Victoria Hospital, Belfast; peripheral vascular disease 56 per cent and accidents 20 per cent. Thirty-six resulted from bomb blasts and gunshot wounds contributed only five. Bomb blasts caused the loss of 13 upper limbs, more than twice the number due to other causes. Eight of the 26 bilateral amputations resulted from bomb blast injuries. The troubles have, therefore, more than doubled the number of amputations due to trauma putting a greater work load on the limb fitting, physiotherapy and other departments concerned with amputees. In contrast, most other amputations were due to peripheral vascular disease in the toes and accidents to the fingers at work.

ACKNOWLEDGEMENTS

I wish to thank Mr. G. W. Johnston, Mr. T. Kennedy, Mr. R. H. Livingston, Mr. W. Rutherford and Mr. R. I. Wilson for their encouragement in the preparation of this paper.

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