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CLINICAL INVESTIGATION STUDY PROPOSAL - 07-855

INSTITUTION: Naval Hospital, Annapolis, Maryland

TITLE: "Evaluation of the Modified Bristow Procedure in the Treatment of Recurrent Subluxations and Dislocations of the Shoulder"

NAV1.954307.001

INVESTIGATORS:

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 Percent of time available for study: 1/3  
 Projected Rotation Date: July 1979

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 Projected Rotation Date: July 1975

A. OBJECTIVES: To evaluate the effectiveness of the modified Bristow procedure in the treatment of recurrent subluxations and dislocations of the shoulder in a large group of young athletes.

B. BACKGROUND: The modified Bristow procedure is currently one of the more popular methods for dealing with gleno-humeral instability in the athlete. Well-documented result studies are surprisingly lacking for this procedure, however.

The U.S. Naval Academy offers an ideal situation for such a study. (1) Recurrent subluxations and dislocations constitute a major cause of disability at the U.S. Naval Academy. (2) Since 1973 the modified Bristow procedure has been the procedure of choice at the Naval Hospital, Annapolis for this problem. (3) All surgery is performed by the investigators and is carried out using a standardized technique (Collins---see bibliography). (4) Because of the nature of their military obligation, the midshipmen constitute a particularly stable population well-suited to a followup study of this nature.

Bibliography:

1. Collins, R.H. and Wilde, A.H. "Shoulder Instability in Athletics" Orthopedic Clinics of North America 4:759-774, 1973.

Abstract of Progress

AN EVALUATION OF THE MODIFIED BRISTOW PROCEDURE IN THE TREATMENT OF RECURRENT SUBLUXATIONS AND DISLOCATIONS OF THE SHOULDER. J. S. Cox  
Naval Regional Medical Clinic, Annapolis.

The modified Bristow procedure consists of the transfer of the tip of the coracoid process along with the origin of the coracobrachialis and the short head of the biceps muscles to the anterior rim of the glenoid portion of the scapula. The tip of the coracoid with the attached muscle aponeurosis is fixed to the glenoid with a stainless steel screw. It is thought that the mechanism for prevention of recurrent subluxation and dislocation of the glenohumeral joint involves the subscapularis muscle, which has been split for the repositioning of the tip of the coracoid process, serving as a substitute for the torn portion of the capsule of the glenohumeral joint known as the inferior glenohumeral ligament. Over 150 of these procedures have been performed at the U. S. Naval Academy. Only two patients have had recurrent subluxation and have required subsequent surgery. One other patient had problems with the shoulder joint and exploratory surgery revealed that the screw had penetrated into the glenoid fossa and was causing contact with the humeral head. After the removal of the screw, the patient became asymptomatic and had no further subluxations. There were four cases of broken screws, indicating nonunion of the coracoid.

A sufficient number of cases have now been performed to provide significant data for evaluation. It is anticipated that this study will be presented and published within the next two years.

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