MIPR NO: 91MM1502

TITLE: A PROSPECTIVE EVALUATION OF STRESS FRACTURES/OVERUSE INJURIES IN A POPULATION OF WEST POINT CADETS

PRINCIPAL INVESTIGATOR: Swain, James H.

CONTRACTING ORGANIZATION: Keller Army Community Hospital
USAMMDAAC
West Point, New York 10996-6000

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PREPARED FOR: U.S. ARMY MEDICAL RESEARCH AND DEVELOPMENT COMMAND
Fort Detrick, Frederick, Maryland 21702-5012

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The findings in this report are not to be construed as an official Department of the Army position unless so designated by other authorized documents.
The study group performed two evaluations during this period. 175 Cadets remain in the study. Nonparticipant are primarily due to resignation from the Academy. Body fat % for the men and women has remained the same. The women have increased weight indicating a gain in muscle mass. Lower extremity injuries have equalized in the two groups. There were more injuries in men (32%) than in women (27%) from January 91 to August 1991. Bone density and laboratory values are being automated presently.
1. Contract Number: 8916011 (MIRP#: 91MM1502)
2. Principal Investigator: Colonel Jack Ryan MD, Maj Charles Scoville PT (local PI).
3. Date of Report: 15 January 1992
5. Address: Col. Jack Ryan MD Maj. Charles Scoville
   MTR Division Chief, Physical Therapy
   LAIR MEDDAC
   PSF, Ca. 94129 West Point, NY 10996
   Tel.415-561-5816 Tel.914-938-4733

7. Project Title: Evaluation of Stress Fractures/Overuse Injuries in a Population of West Point Cadets.

8. Current Staff, with percent of effort of each on project:
   Col Jack Ryan Principal Investigator 15%
   Maj Charles Scoville Co-investigator 10%
   Maj Dean Taylor Co-investigator 5%
   Dan Brooks Co-investigator 15%
   Marjorie Hunt Co-investigator 15%
   Dr. Copley Co-investigator 5%
   Dr. Linburg Co-investigator 10%
   James Swain Co-investigator 5%
   Cindy McClintoc Co-investigator 5%
   Maj John Uhorchek Co-investigator 5%
   Mrs Ruth Travers secretary phy therapy 5%
   Ms Jane Reddington secretary CI 5%

9. Administrative and Logistic matters: The study group successfully performed two evaluations during this period. Two investigators left active duty (Swain, Linburg). A new local PI was appointed (Scoville). The PI (Ryan) deployed to SW Asia (Oct90- Ap91) and now is assigned to LAIR. A new dual energy x-ray bone densitometer machine was delivered and installed (LUNAR DPX).

10. Summary of expenditures:
    Personnel: as noted in #8.
    Personnel: TDY for evaluation team
    Equipment: Lunar PX delivered May 91
    Supplies: n/a
    Funds: $81,710 committed
11. Scientific Progress during year 90-91:
The study group performed two evaluations during this period. 175 cadets remain in the study. Nonparticipant are primarily due to resignation from the Academy. Body fat % for the men and women has remained the same. The women have increased weight indicating a gain in muscle mass. Lower extremity injuries have equalized in the two groups. There were more injuries in men (32%) than in women (27%) from January 91 to August 91. Bone density and laboratory values are being automated presently.

Continue to analyze data. Add questions concerning activity level during last year of high school and during study period. Perform evaluation during 13-17 January 1992 and during the Fall 1992.