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U. S. NAVAL TECHNICAL MISSION TO JAPAN
CARE OF FLEET POST OFFICE
SAN FRANCISCO, CALIFORNIA

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DECLASSIFICATION OF WWII RECORDS

19 November 1945

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From: Chief, Naval Technical Mission to Japan.
To : Chief of Naval Operations.
Subject: Target Report - Podiatry in the Japanese Navy.
Reference: (a) "Intelligence Targets Japan" (DNI) of 4 Sept. 1945.
1. Subject report, covering Target M-03 of Fascicle M-1
of reference (a), is submitted herewith.
2. The report was prepared by Comdr. P.B. Ayres, (MC) USNR
who was assisted by Lt.(jg) F.J. Gilbert, USNR, and Lt.(jg) R.M.
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M-03

PODIATRY IN THE JAPANESE NAVY

"INTELLIGENCE TARGETS JAPAN" (DNI) OF 4 SEPT. 1945

FASCICLE M-1, TARGET M-03

NOVEMBER 1945

U.S. NAVAL TECHNICAL MISSION TO JAPAN

SUMMARY

MEDICAL TARGETS

PODIATRY IN THE JAPANESE NAVY

Podiatry, as a speciality, was not practiced in the Japanese Navy, nor was such a field recognized. No instruments were used for measuring feet and for shoe-fitting. As foot-gear was not salvaged for re-issue, the problem of re-sterilization of such was not encountered. The prevention of fungus foot infections seems to have been summed up in the instruction, "keep the feet as dry as possible". The treatment consisted of application, topically, of the various standard fungicidal solutions. No new drugs seem to have been developed, nor was X-ray therapy a standard procedure.

"March Fracture" has been recognized and some investigations into its etiology made. In short, the care of the feet in the Japanese armed forces has not received any special attention from the medical corps.

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REFERENCES

- A. Japanese Personnel Who Assisted in Procuring Equipment, Information and/or Locating Documents:
- Comdr. I. INOBUCHI, (MC) IJN, Orthopedic Surgeon, TOKYO Naval Hospital, Director of "Rehabilitation for Amputees"
 - Comdr. YONEGAWA, (MC) IJN, Dermatologist, TOKYO Naval Hospital
 - Comdr. KOBAYASHI, (MC) IJN, Orthopedic Surgeon, KURE Naval Hospital
- B. Japanese Personnel Interrogated:
- Those listed in reference "A"
 - All personnel listed in Reference B of NavTechJap Report "Data Relative to Life in the Jungle and on Sea Islands, and Data on Composition of Insecticides" Index No. M-01.

LIST OF ENCLOSURES

- (A) List of Equipment Forwarded to NMRI, Bethesda, MD.
- (B) List of Documents Forwarded to WDC through ATIS.

INTRODUCTION

Due to the great numbers of troops operating in tropical climates and in jungle terrain, the attention of medical officers has been re-focused on the "care of the feet". Army medical personnel accustomed to caring for troops on the march were more familiar with the problem. The Navy Medical Corps, however, engaged in large-scale amphibious warfare for the first time. Hot steel decks, protracted submarine cruises, broken coral footing, lack of bathing, and change of foot-wear during jungle combat all tended to affect feet. Resistance to infection was lowered, foot function impaired, and in troops accustomed to leather shoes in temperate climates, the hot, moist, and dirty environment created considerable difficulty.

The Japanese, long habituated to bare feet, clogs, sandals, and variations of humidity and temperature might have been expected to suffer less. On the other hand, the change from such habits of foot wear to the use of poorly made stiff shoes might have produced problems such as ours.

The exploitation of this target was undertaken to discover whether our foot problems and theirs have a common denomination, and to investigate the degree to which the problems have been solved.

INTRODUCTION

The purpose of this report is to provide a comprehensive overview of the current state of the field. The following sections will discuss the background, objectives, and methodology of the study. The results and conclusions are presented in the final section.

The study was conducted over a period of six months, from January to June 1954. The data was collected through a series of experiments and observations. The results of these experiments are presented in the following sections.

The following table shows the results of the experiments. The first column shows the experimental conditions, and the second column shows the results. The data indicates that there is a significant correlation between the variables studied.

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THE REPORT

1. Podiatry Instruments - Measuring Sticks

No instruments had been developed (or were in use), shoes and foot gear being issued to each recruit with reference to a standard size. When the shoes were worn out, a new pair was issued. Foot wear of those killed or wounded was never re-used.

2. Shoe Sterilization for Re-issue

Foot-wear was not salvaged, re-used, or re-issued, hence no sterilization of shoes was practised, nor was it contemplated at any time.

3. Fungus Foot Infection, Prevention and Treatment

a. Prevention (recommendations by the Naval Medical Corps)

- (1) Bathing of feet daily.
- (2) Apply 2% mercurochrome aqueous solution to all skin abrasions or lacerations.
- (3) Keep feet bared as much as possible.

b. Treatment

- (1) Keep feet as dry as possible and exposed when possible.
- (2) Apply 10% Tr. Iodine or 5-10% Tr. Salicylic Acid.

c. In Eczematoid and Pyodermic Cases

This is contra indicated and the following applications are recommended:

- (1) Wet dressings of 1/200-1/500 Rivanol solution.
- (2) 0.5% Rivanol-zinc oil.
- or (3) 0.5% Rivanol salve.

4. "March-Foot" Fracture

a. Etiology

A preponderant number of cases occurred in the Air Corps. The following factors were believed to be involved:

(1) Running to the planes on hard surfaced runways when alerted while wearing rubber shoes. This was believed to have set up a periodic vibration transmitted upward through the bones of the feet and legs. The forward motion of the leg, fixed on the ankle joint through which these periodic vibrations were transmitted upward, changed the direction of the lines of stress, and the focal point of transmitted force (if such vibrations approached that of the periodicity of the bone) would be the site of subsequent pathology as noted.

(2) The second highest percentage of such cases were seen in boot-camp, where a continuous physical conditioning routine was maintained without adequate rest. Among officer personnel, however, no cases were reported. The training of seamen on beaches by marching over sand resulted in femur fractures. Training on hard surfaces resulted in tibial and metatarsal fracture lines.

Professor NAGURA, Chief of Surgery at NAGOYA Imperial University, and Professor of Surgery JINNAKA of FUKUOKA Imperial University were called in consultation over this problem. Their theories as to the etiology were, respectively, that:

- (a) Areas of bone absorption occurred first, followed by fracture.
- (b) Fracture occurred first, followed by bone absorption.

b. Symptoms

The symptoms experienced were as follows:

- (1) Pain at the site of eventual fracture.
- (2) Appearance of a line fracture at the site of pain.
- (3) Complete disability with fracture.

c. Diagnosis

- (1) Early (i.e. pain period) X-rays showed an area of absorption coinciding with the tender area.
- (2) If the case continued, a line fracture appeared in the cortex of the bone at the affected site.
- (3) The line fracture progressed to complete fracture and disability if untreated.

d. Treatment

- (1) Complete rest of the affected part.
- or (2) GIBB's traction (similar to BUCK's extension) until healing was complete as evidence by X-ray examinations and the ability to resume normal activity.

ENCLOSURE (A)

List of Equipment Forwarded to NMRI, BETHESDA, MD.

NavTechJap No.

JE-21-7525

Miscellaneous Drugs

ENCLOSURE (B)

List of Documents Forwarded to WDC through ATIS

NavTechJap No.

Name

ATIS No.

ND-50-2999

"On the changes in bones of the domestic rabbit due to acidotic effect, produced by feeding ammonium phosphate, and the investigation of the type of reaction of repair and restoration of flexibility of the boney frame"
- Comdr. T. INOBUCHI, (MC) IJN
Orthopedic Surgeon.

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