

Abstracts

A CLINICAL STUDY OF ALLOY STEEL WIRE SUTURES IN HERNIA REPAIR

by Louis René Kaufman, M.D., F.A.C.S., William W. Johnson, M.D., Albert Lesser, M.D., New York, N. Y.

from Surgery Gynecology & Obstetrics, November 1939.

The relative value of absorbable and non absorbable suture is considered by the authors in a series of cases and experiments. Catgut, black silk and alloy steel wire are compared.

The literature on the subject reveals that, though catgut continues to be generally favored by surgeons, its absorbability frequently gives rise to complications in wound healing, since in some cases it may fail to persist long enough to accomplish its purpose of coaptation until union may occur. In addition there are the disadvantages of possible lack of sterility, catgut allergy and reaction to chemical sterilization.

Silver wire has been used with success by Shipley and others but it has been demonstrated that alloy steel has all its advantages yet lacks some of its disadvantages. It does not tarish or corrode and consequently does not produce tissue discoloration; has greater tensile strength and is less brittle than silver wire; is easily manipulated and is absolutely unpermeable. It may be used in extremely fine size, is easily sterilized and is relatively inexpensive.

In an attempt to clarify the status of alloy steel the authors conducted two investigations: (A) a study of 56 consecutive cases of hernia repair; (B) a study of wound repair in dogs.

(A) The 56 cases were divided as follows: Group 1—25 cases—catgut, chromitized and plain, used throughout for buried sutures; group 2—18 cases—alloy steel wire sutures used for repair of the structural defects, with catgut for the peritoneal sac and hemostatic ligatures; group 3 — 10 cases — alloy steel wire sutures used exclusively; group 4—3 cases—black silk alone was used.

Incidence of infection: In group 1 there were 6 infections in 25 cases; in group 2 two infections in 18 cases; in group 3 no infections in 10 operations; and in group 4 two infections in 3 cases. The authors state that the last was far in excess of their usual results with black silk.

Incidence of Seroma (gross accumulation of serum or blood requiring evacuation without subsequent suppuration): Group 1—none; group 2—five in 18 cases; group 3—none; group 4—one seroma in 3 cases.

Degree of wound induration: At the time of discharge the degree of induration in those cases in which steel wire was used was markedly less than those in which catgut or black silk were used. Ten months later, however, the various suture type cases could not be distinguished from one another.

Because of the short time between operation and publication no significant information could be given regarding recurrences.

(B) In order to ascertain whether or not the clinical impressions of alloy steel wire sutures could be confirmed under the microscope, the tissue reaction of individual animals to the various suture materials was studied. Dividing the abdomens of the dogs into 4 quadrants, ventral incisions were made extending through the peritoneum and repaired as follows: Both right quadrants were repaired with alloy steel, the upper left with black silk, and the lower left with chromic catgut. At intervals of 4, 8, 12, and 16 days the suture line areas including skin through peritoneum were excised en bloc. These tissues were prepared and sectioned. The pathological report showed that tissues with alloy steel wire had less necrosis than either of the others; and fibrous tissue replacement equal to that of silk and greater than that of catgut.

Author's Summary: Because it results in a reduction of infection and seroma formation steel wire should be used exclusively throughout rather than with absorbable sutures. It remains intact throughout the process of healing regardless of the degree of infection and yields, in the early post operative period, less induration, redness and swelling than other suture materials. The patients manifest no untoward or uncomfortable symptoms referable to the presence of buried wire sutures. These clinical impressions are born out by tissue reactions in dogs. The result of these investigations warrant the further use of alloy steel wire sutures.

LOUIS RAIDER, B.Sc., '41.

DIET AND DEATH IN ACUTE URAEMIA

by T. Addis & W. Lew,

Standford University Medical School; from The Journal of Clinical Investigation, November, 1939.

The object was to point to some factor in meat proteins which is instrumental in causing death in acute uraemia.

Method:

STRAPPED FOR RICKETS

The swaddled infant pictured at right is one of the famous works in terra cotta exquisitely modeled by the fifteenth century Italian sculptor, Andrea della Robbia. In that day infants were bandaged from birth to preserve the symmetry of their bodies, but still the gibbous spine and distorted limbs of severe rickets often made their appearance.



A bambino from the Foundling Hospital, Florence, Italy,—A. della Robbia

SWADDLING was practised down through the centuries, from Biblical times to Glisson's day, in the vain hope that it would prevent the deformities of rickets. Even in sunny Italy swaddling was a prevailing custom, recommended by that early pediatrician, Soranus of Ephesus, who discoursed on "Why the Majority of Roman Children are Distorted."

"This is observed to happen more in the neighborhood of Rome than in other places," he wrote. "If no one oversees the infant's movements, his limbs do in the generality of cases become twisted. . . . Hence, when he first begins to sit he must be propped by swathings of bandages. . . ." Hundreds of years later swaddling was still prevalent in Italy, as attested by the sculptures of the della Robbias and their contemporaries. For infants who were strong Glisson suggested placing "Leaden Shoes" on their feet and suspending them with swaddling bands in mid-air.

How amazed the ancients would have been to know that bones can be helped to grow straight simply by internal administration of a few drops of Oleum Percomorphum. What to them would have been a miracle has become a commonplace of science. Because it can

Oleum Percomorphum offers not less than 60,000 U.S.P. vitamin A units and 8,500 U.S.P. vitamin D units per gram. Supplied in 10 and 50 c.c. bottles, also in boxes of 25 and 100 ten-drop soluble gelatin capsules containing not less than 13,300 vitamin A units and 1,850 vitamin D units (equal to more than 5 teaspoonfuls of cod liver oil*).

*U.S.P. Minimum Standard

be administered in drop dosage, Oleum Percomorphum is especially suitable for young and premature infants, who are most susceptible to rickets. Its vitamins A and D derived from natural sources, this product has 100 times the potency of cod liver oil.* Important also to your patients, Oleum Percomorphum is an economical antiricketic.

MEAD JOHNSON & CO. OF CANADA, LTD.
BELLEVILLE, ONTARIO

I. Artificial uraemia was produced in rats by ligating the inferior vena cava above the entrance of the renal veins. This produced a uraemic symptom-complex with convulsions, very high blood chemistries and urine containing large numbers of renal failure casts.

II. The rats were divided into groups, including those in which an operation was performed but the inferior vena cava was not ligated. These groups were fed:

- A. No protein.
- B. Protein contained in such substance as cereals, milk, etc.
- C. Proteins of meat.

It was found that, taking the controls into consideration, the death rates in groups A and B, were negligible. The death rate in group C was 50% or above.

III. The meat fed group was divided into two classes "a" and "b". Class "a" was fed with an alcohol soluble meat extract containing organic meat constituents. Class "b" was fed with a water soluble extract containing inorganic salts found in meat, i.e. the ash of muscle.

Class "a" was found to have a negligible mortality. Class "b" was found to have a mortality comparable to that in the whole meat fed group, i.e. about 50%.

IV. Since the ash of muscle is known to consist almost entirely of Potassium salts, the authors made up a solutions of KH_2PO_4 and KCl which had about the same ash content as the toxic non-alcohol soluble fraction.

It was found that the death rate in these rats was comparable with that in the whole meat fed group i.e. about 50%.

In conclusion, the authors write: "We therefore believe that the high mortality of our uraemic rats given the 70% beef diet was due to potassium. These experiments are an indication that large doses of potassium may be dangerous if they are given as diuretics to uraemic patients."

SAM SHANE, B.Sc., '40.

THE CLINICAL SIGNIFICANCE OF A LUMP IN THE BREAST

Crile, Cleveland Clinic Quarterly,
May, 1939.

The author of this article attempts to diagnose the various conditions giving rise to a lump in the breast by certain definite clinical features.

The age of the woman is of paramount importance. Benign lesions of the breast occur relatively rarely after fifty years of age, most of them occurring between 20-50 years. Malignant growths are not common under 50 years, the majority occurring after 50 years. Hence, to sum

up the age distribution, Dr. Crile claims that, in a female over 50 years, the chances are that the tumor is malignant; under 40 years, chances are tumor is benign; between 40-50 years, there is an even chance that the tumor is benign or malignant.

Symptoms are not uniform, but the presence of pain or tenderness, especially when the condition is bi-lateral, is more apt to indicate benign cystic disease. However, the author claims that 25% of all cases studied giving the above symptoms, proved to be carcinoma. Discharge is more usually associated with a benign lesion, but again beware of carcinoma. Of the 131 cases of benign cystic disease, 62% showed a lump in the breast; 46% complained of pain and tenderness; 6% had a discharge from the mass; 5% had no symptoms; none had enlargement of axillary lymph glands. Of the 69 cases of malignant growth, 90% had a lump; 26% complained of pain and tenderness; 7% had discharge; 12% had symptoms referable to distant metastases; 6% had symptoms referable to axillary metastases.

As regards the physical signs, dimpling of the skin and fixation of tumor to the skin of underlying tissue, are almost pathognomonic of carcinoma. Axillary gland enlargements and a mass located in the upper outer quadrant of breast usually favors the diagnosis of malignancy.

Dr. Crile then outlines the chief features in the clinical diagnosis of the outstanding conditions giving rise to a lump in the breast as follows:

(1) The diagnosis of carcinoma is based in the main on the age of the patient, the presence of dimpling of the overlying skin and the presence of palpably enlarged axillary glands.

(2) The diagnosis of benign cystic disease is based on the age, presence of marked pain and tenderness during the involutionary period of life, presence of discharge and the appearance of one or more discrete fluctuant or tense cysts.

(3) Periductal Fibro-adenoma is diagnosed on the age, presence of a single lump and no pain.

(4) The diagnosis of a duct papilloma is made on the presence of a lump associated with pain and bloody discharge, and the age—usually occurring about the age of 50 years.

In conclusion, the author states that there are definite clinical features characteristic of the particular condition, but it must be remembered that the other conditions may produce identical symptoms.

HAROLD RIFKIN, A.B., '41

THE MEDICAL MAN'S CHOICE

THE NEW

LOHNES CAFE

22 BLOWERS St. — B-9555



EXCELLENT FOOD — SMART ATMOSPHERE
COURTEOUS AND EFFICIENT SERVICE

Compliments of

OLAND and SON
Limited



HALIFAX, N. S.

With Compliments of

SNOW & CO.
LIMITED

The oldest funeral establish-
ment in the City, whose
motto has ever been

“efficiency in every detail.”



90 Argyle St. - B-6601

A Dalhousie Medical Students

desire:

A BEAUTIFUL GIRL
with
A BEAUTIFUL CORSAGE

designed by

The Rosedale Nurseries

All Orders for Flowers, Bouquets and
Xmas Gifts will be delivered promptly

We Wire Flowers Everywhere

381 Barrington St., Y.M.C.A. Bldg.
B-64400

31 Spring Garden Road - B-6440

We grow all our own Roses & Flowers
also Potted Plants
At Our Nurseries, Dartmouth, H-2200

BUCKLEY'S

Six Drug Stores

•
Oldest - Best - Most Reliable
•

BUCKLEY'S LIMITED

HALIFAX, NOVA SCOTIA

**BETWEEN CLASSES
AND**

AFTER THE SHOW

GET YOUR SNACK

AT THE

Diana Sweet Shoppe

160 SPRING GARDEN ROAD

HAMBURGERS - HOT DOGS - HOT SOUPS
ICE CREAM SUNDAES A LA DIANA
CANDIES - CAKES - FRUIT - MAGAZINES

Call B-9754 — Will Deliver

Maritime Dental Supply Co., Limited

HALIFAX, N. S.
and
SAINT JOHN, N. B.

Service to the Dental
Profession in the
Maritime Provinces

For Perfect Fitting Shoes and Foot Comfort . . .

Shop at Shane's

We specialize in:

Health Spot, Ritchie Flexible
Arch, Hartt and Slater Shoes
for men and women.

White Shoes For Internes
Our Specialty

Shane's Shoe Store

397 BARRINGTON STREET

Where College Men Congregate . .

Maintaining a Con-
stant High Standard
of Quality in Smart
Clothing and Fur-
nishings for Young
Men . . .

SHANE'S MEN'S SHOP

30 SPRING GARDEN ROAD

Telephone B-6992

GAUVIN and GENTZELL

18 Spring Garden Road
HALIFAX, N. S.

Portraiture
Amateur Finishing
and Framing

G. A. GAUVIN, Jr.

*We Serve
The Medical Profession*

National Canadian Drugs

LIMITED

Distributors of Ethical Pharmaceutical
Products Throughout The Maritimes



Branches at

HALIFAX, N. S. SYDNEY, N. S. SAINT JOHN, N. B.



ACUTE PELVIC CONGESTION

In the treatment of such conditions, the use of Antiphlogistine, applied vaginally, as tampons, and abdominally, as poultices, answers the need for both heat and glycerine medication for the relief of *inflammation, congestion, and pain.*

ANTIPHLOGISTINE

Sample on request


THE DENVER CHEMICAL MANUFACTURING COMPANY
153 LAGAUCHETIERE ST. W., MONTREAL

MADE IN CANADA

THE LIST OF ADVERTISERS IN THIS ISSUE ARE:

	Page
1. Buckley's Drug Stores	49
2. Dalhousie University	2
3. Denver Chemical Co.	52
4. Diana Sweet Shoppe	49
5. Charles E. Frost & Co. (inside front cover)	
6. Gauvin & Gentzel.....	50
7. Lohnes Cafe	48
8. Maritime Dental	50
9. McAinsh & Co.	2
10. McLeod-Balcom Ltd. (outside back cover)	
11. Mead Johnson Co.	47
12. National Canadian Drug Ltd.....	51
13. Oland & Son	48
14. Rosedale Florists	49
15. Shane's Men's Store	50
16. Shane's Shoe Store	50
17. Snow's Funeral Parlors	48
18. McCurdy Printing Co. (inside back cover)	

**M^cCURDY
P R I N T**
54 ARGYLE ST. HALIFAX
B-7606



24 HOUR SERVICE
DAY
NIGHT

Please Mention Dalhousie Medical Journal When Patronizing Our Advertisers

Medical and Hospital Supplies, Ltd.

17½ SPRING GARDEN ROAD
HALIFAX, N. S.

"Come in and Inspect the New Band Triple Change Stethoscope"



WE HAVE IN STOCK THE NEW
"ACCOSON" SPHYGMOMANOMETERS
(Adjusted in a Few Seconds)

RUBBER AIR CUSHIONS
AIR PILLOWS
and
AIR MATTRESSES.
HAEMACYTOMETERS
DISSECTING KITS
SURGICAL INSTRUMENTS
TRUSSES AND SUPPORTS



Phone B-7787

Associated with MacLeod-Balcom, Limited
and Atlantic Drug Co., Limited

Please Mention Dalhousie Medical Journal When Patronizing Our Advertisers