Acute Care SINS: Surgical Insights for the Non-surgeon

Chapter 1: Introduction and Surgical Definitions

Rachel G. Khadaroo MD PhD, J. Drew Sutherland MD, Peter G. Brindley MD

About the Authors

Peter Brindley (far left) and Rachel Khadaroo (middle) are members of the Division of Critical Care Medicine, and Rachel G. Khadaroo and Drew Sutherland (left) are members of the Division of General Surgery, all at the University of Alberta, in Edmonton, Alberta. Correspondence may be directed to peter.brindley@albertahealthservices.ca.

Summary

“Surgical Insights for the Non-surgeon,” or SINS, is composed of several short chapters intended to cover fundamental surgical knowledge for non-surgeons. The authors focus on surgical pearls, operative insights, and applied anatomy. Chapter 1 of the series presents surgical definitions.

Résumé

L'ouvrage « Surgical Insights for the Non-surgeon » ou SINS (aperçu de chirurgie pour le non chirurgien) se compose de plusieurs courts chapitres conçus pour couvrir les connaissances fondamentales en matière de chirurgie chez ceux qui ne sont pas chirurgiens. Les auteurs se concentrent sur des « trésors de sagesse » tirés de leur expérience personnelle en chirurgie, certaines idées en matière d'interventions, et sur l'anatomie appliquée. Le chapitre 1 présente des définitions de termes chirurgicaux.

Medicine is the most humane of science ... and the most scientific of humanities.

— Ernest Pellegrino MD

Introduction to the Series

Thank you for taking the time to read this; we know you are busy ... very busy. However, we hope you will find it unashamedly practical and straightforward. This series encompasses several short chapters intended to cover fundamental surgical knowledge for non-surgeons. In short, this series represents a long overdue “surgical internship” for one of the authors and a great deal of patience (and hidden smirks) from his surgical colleagues. The goal is that you benefit and your patients benefit – and nobody else ever has to look daft!

Modern medical practitioners need a working knowledge of surgery whether they yield the scalpel or not. Sadly, anatomy

is often de-emphasized, and many of us have received little targeted surgical training. This has left us highly trained in our own discipline but somewhat confused about what happens in the operating room (OR) or what to watch for once our patients return. The goal of this series is categorically *not* to make non-surgeons responsible for all surgical patients and all surgical problems. Instead, the goal is to ensure that the word *general* remains proudly before the words *internal medicine*. Right where it belongs.

We are also not trying to provide in-depth surgical management or an operative “how to” guide; such books already exist. Instead, we will focus on surgical pearls, operative insights, and applied anatomy. In short, if it helps the internist

to be a better resource for his or her patients and colleagues, then it deserves to be covered. Regardless, whether you read this entire series or use it secretly while publicly ridiculing its simplicity, we will be delighted. Thank you for caring about patients as much as we do.

In this issue of *CJGIM*, we present Chapters 1 and 2 of the series: the current article, “Introduction and Surgical Definitions,” as well as “Tubes, Drains, and Ostomies.”

Surgical Definitions

“Say what you mean; mean what you say.”

anastomosis

- A connection between two formerly separate structures.
- Can be created surgically, traumatically, or pathologically.

Example: Ileocolic *anastomosis* – the connection between the small bowel (ileum) and large bowel (colon).

-ectomy

- Removal of an organ, or part of an organ.

Examples:

Appendectomy – removal of the appendix.

Craniectomy – removal of a portion of the skull.

fissure

- Cleft, groove, or tear, either normal or pathological.

Example: Anal *fissure* – a tear in the anal mucosa – also known as a pain in the ass!

fistula

- Abnormal passage/communication.
- Usually between two epithelialized surfaces, but can be otherwise.

Examples:

Arteriovenous fistula – a communication between an artery and a vein.

Rectovaginal fistula – a communication between the rectum and vagina.

flap

- Tissue used to cover a wound:
 - Created from skin, subcutaneous tissue, fascia, muscle, or even bone.
- Can be described by the transferred tissue:
 - Cutaneous – full thickness of skin and superficial fascia.
 - Myocutaneous – adds a layer of muscle to provide bulk.

- Can also be described by the blood supply or complexity:
 - Free flaps/distant flaps retain own blood vessels. Can be moved to a site distant from their harvest site.
 - Local flaps maintain local blood supply. Created by freeing tissue and moving the tissue over the adjacent defect. This is a less complex flap. Examples include advancement flaps and rotation flaps.

Examples:

Bone flap – craniotomy involving elevation of part of the skull.

TRAM flap – transverse rectus abdominis myocutaneous flap, where abdominal muscle and fat are rotated to the chest wall.

hernia

- The protrusion of an organ or tissue through the wall of the cavity that normally contains it.

Example: Hiatal *hernia* – protrusion of abdominal contents through the diaphragm.

-opsy

- A medical examination or inspection.

Examples:

Biopsy – a sample of tissue of cells examined to obtain a diagnosis.

Autopsy – examination of a body after death.

-ostomy

- A general term meaning creation of a new surgical opening.
- An artificial connection made between two hollow organs or between one hollow organ and the abdominal wall.

Examples:

Ileostomy – an opening between the small bowel (ileum) and abdominal wall.

Gastrojejunostomy – an anastomosis between the stomach and jejunum.

-otomy

- An incision into something.

Examples:

Enterotomy – opening created in the intestine (deliberate or accidental).

Craniotomy – incision into the cranium.

-pexy

- Surgical fixation of an organ.
- Making less mobile.

Example:

Gastropexy – surgically fixing the stomach to prevent displacement.

-plasty

- Building up of tissue or restoration of a lost part.
- Alteration of shape.

Examples:

Gastroplasty – alteration of shape of the stomach.

Mammoplasty – a procedure to alter the size of the breast.

stenosis

- Abnormal narrowing in a blood vessel or other tubular organ/structure:

- Sometimes called a stricture (as in urethral stricture).
- Coarctation is a synonym (used in context of aortic coarctation).

Examples:

Carotid artery *stenosis*.

Mitral valve *stenosis*.

Bibliography

Dorland's illustrated medical dictionary, 28th ed. Philadelphia: W.B. Saunders Company; 1994.

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