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What I Need to Know About Surgery and Anesthesia

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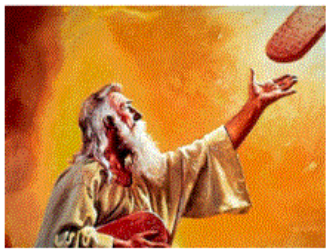
The First Successful Anesthesia

And the Lord God caused a deep sleep to Fall upon Adam, and he slept; and he took one of his ribs, and closed up the flesh instead thereof

Genesis, 2, (21)



Moses receiving the Ten Commandments.

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The First Successful Surgical Procedure

Anesthesiologist/Surgeon Anesthesia

And the Lord God caused a deep sleep to

Patient

Fall upon Adam, and he slept; and he

Thoracotomy

took one of his ribs, and closed up the

Outcome

flesh instead thereof;

Genesis, 2, (21)

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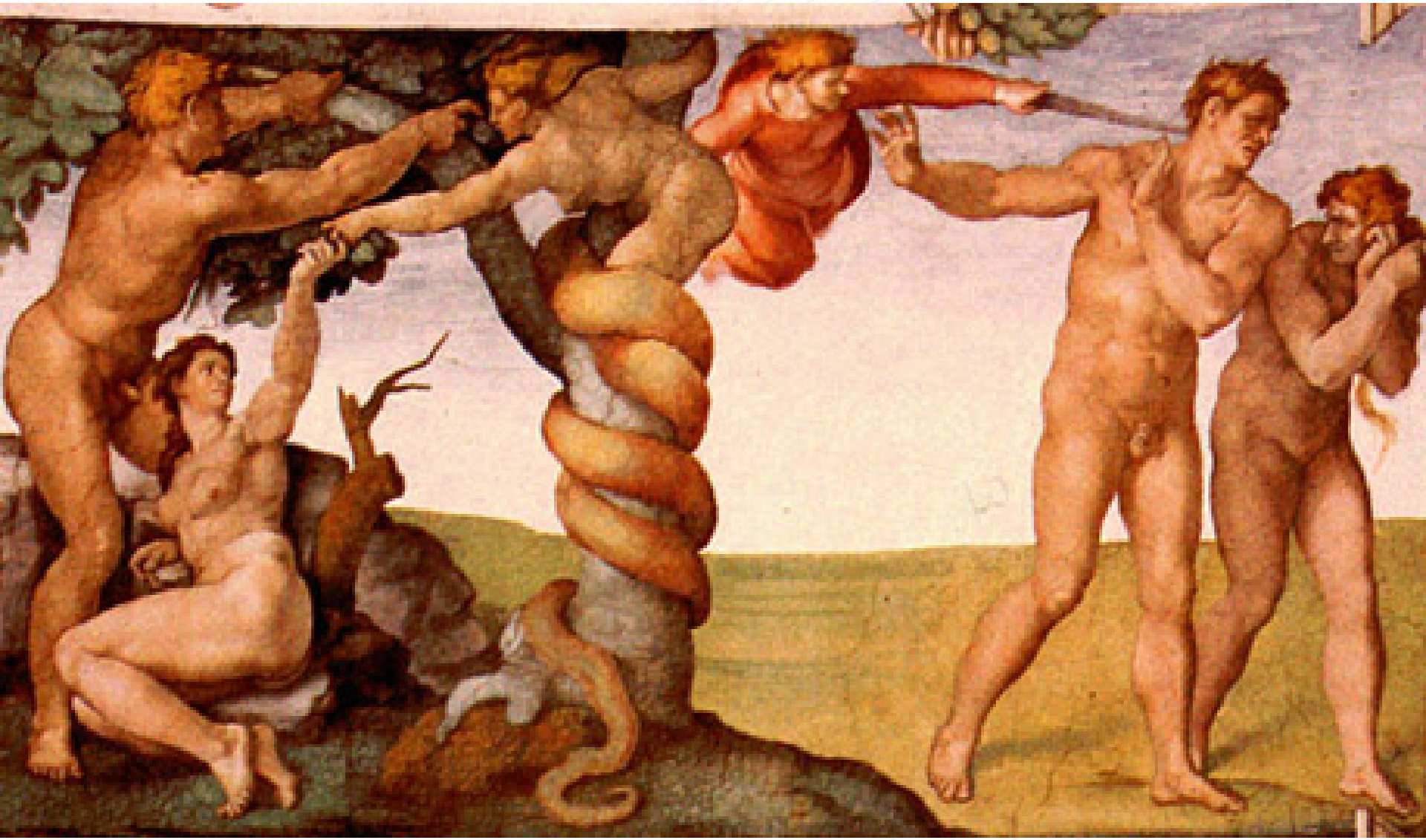

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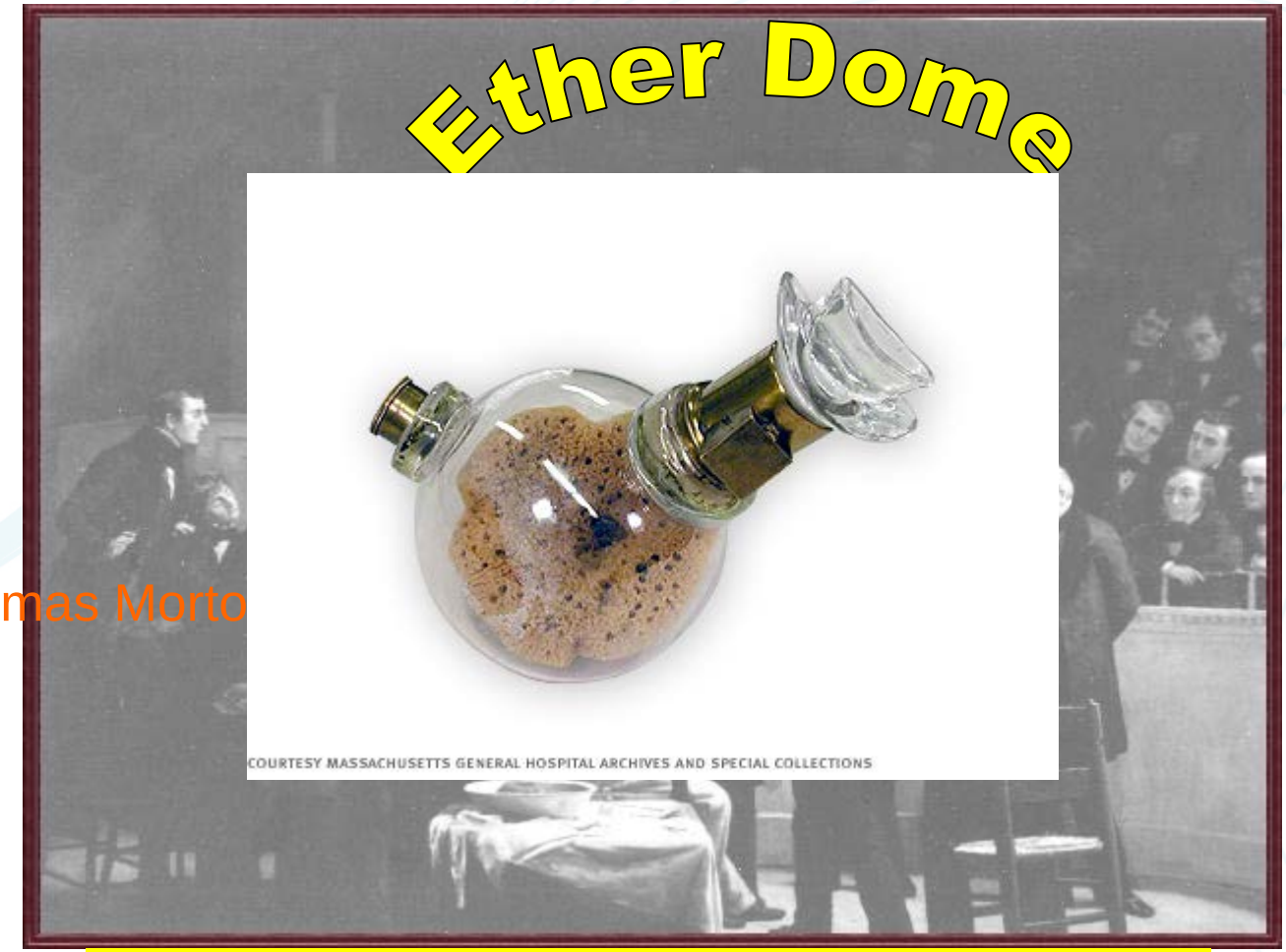
The First Public Display of *Anesthesia* October 16, 1846

William Thomas Morto



Massachusetts General Hospital in Boston

Objectives

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- What I need to know about Anesthesia (FOP Patient)
- How to prepare for surgery and anesthesia (Physician)
- What the anesthesiologist should know about FOP (The Anesthesiologist)

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What I Need To Know About Anesthesia and Surgery

- Types of anesthesia
  - Nerve blocks
  - Regional anesthesia
  - General anesthesia

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Local Anesthesia and FOP

- Injections are not recommended for FOP patients

Regional Anesthesia and FOP

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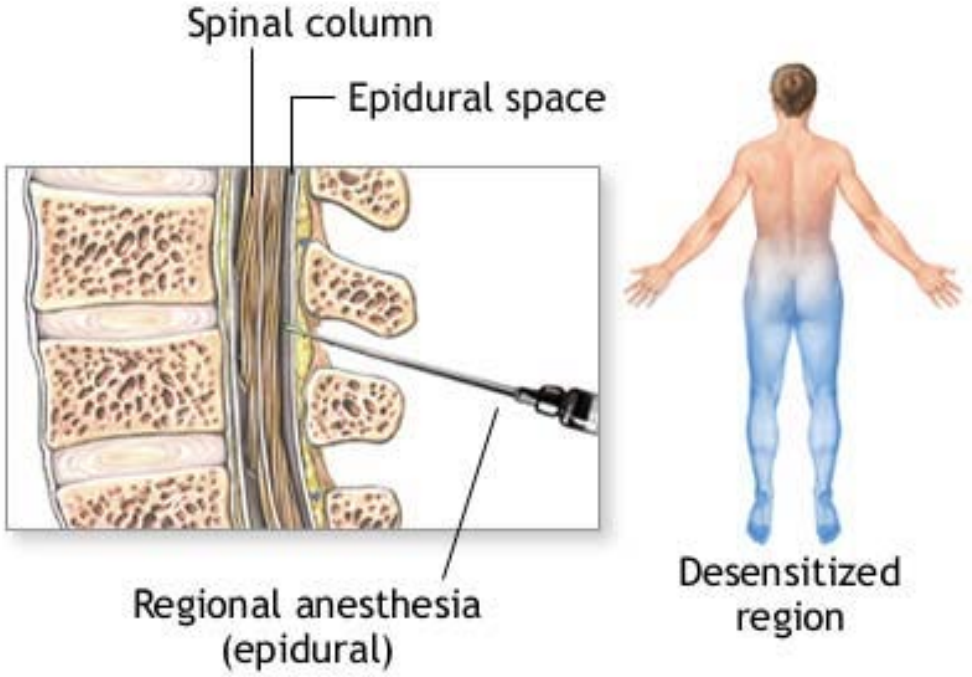

- **Injections are not recommended for FOP patients**

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General Anesthesia

A reversible state of unconsciousness, produced by anesthetic agents, with Absence of pain sensation over the entire body

General Anesthesia and FOP

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- Safe
- Good track record
- Excellent for in-patient and ambulatory patients

The Challenge

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- There is a need to safely secure the breathing
- Need to insert a breathing tube to the wind pipe
  - Even if can open the mouth
  - Especially challenging – if the mouth is shut close

Need an Expert Anesthesiologist

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"The Anesthesiologist will see you at the day of the surgery…"

- A 39 years old patient is scheduled for surgery tomorrow, what kind of a gas will she need for anesthesia? She is in the hospital treated with IV antibiotics for "bronchitis"

- I am having a colonoscopy tomorrow. The gastroenterologist assured me that the anesthesiologist will see me tomorrow.

Not a good advise !!!

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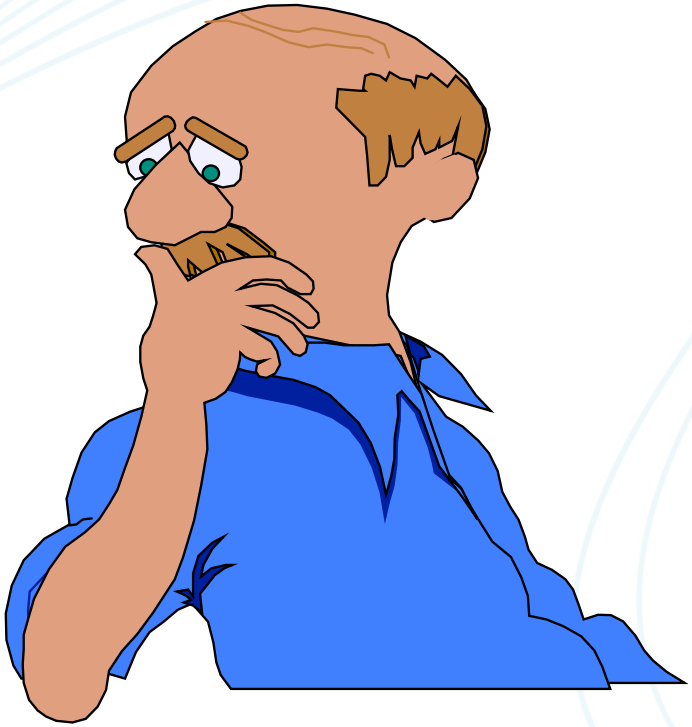
What the Anesthesiologists Should Know About Me?



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What the Anesthesiologists Should Know About Me?

For Every Patient

- Your age, weight, height

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What the Anesthesiologists Should Know About Me?

For Every Patient

- Allergies
- All your medical problems
- Special attention: Asthma, Diabetes, heart or breathing problems
- All your medications (over-the-counter, herbal)
- Previous surgeries

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What the Anesthesiologists Should Know About Me?

- Tell the anesthesiologist that -

  YOU ARE A PATIENT WITH FOP !

- He/She ~~needs~~ ~~has~~ to **MUST** meet with you prior to the day of surgery

- Educate him/her about the FOP

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What the Anesthesiologists Should Know About Me?

- You cannot open the mouth
- You need special accommodations for mobilization and positioning
- Your body reacts to needle insertion
- He needs to assemble a team to care for you

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Case Reports Describing Anesthetic Management

Article	Age (Y)	Intubation	Discharge	Complications: anesthetic	Surgery
12	**12**	asleep nasal fiberoptic	**2 days**	difficult to ventilate	submandibular abscess
13	21	awake fiberoptic nasal	**not described**	none	D&C
14	18	mask GA	**not described**	none	eye eviceration
15	39	awake fiberoptic nasal	**several**	blood loss	femur & spine fx's
16	14	awake fiberoptic nasal	**several**	none	division of ossified masseter muscles
17	37	asleep DL	**5 days**	none	hysterectomy, BSO
18	32	awake FOI-->blind nasal	**several**	ETT would not pass during FOI	Ex lap; pelvic mass
19	**1.5**	sedated nasal FOI	**7 days**	none	brainstem lesion; Craniotomy
20	33	U/S guided ankle block	**not described**	none in 7 days	osteomyelitis 5th digit right foot
21	18	fiberoptic nasal intubarion (awake??)	**4 days**	none, but OMF literature	dental rehab
22	34	oral intubation (awake??)	**2 days**	none noted	thoracic laminectomy

Special Patients Deserve a Special Team

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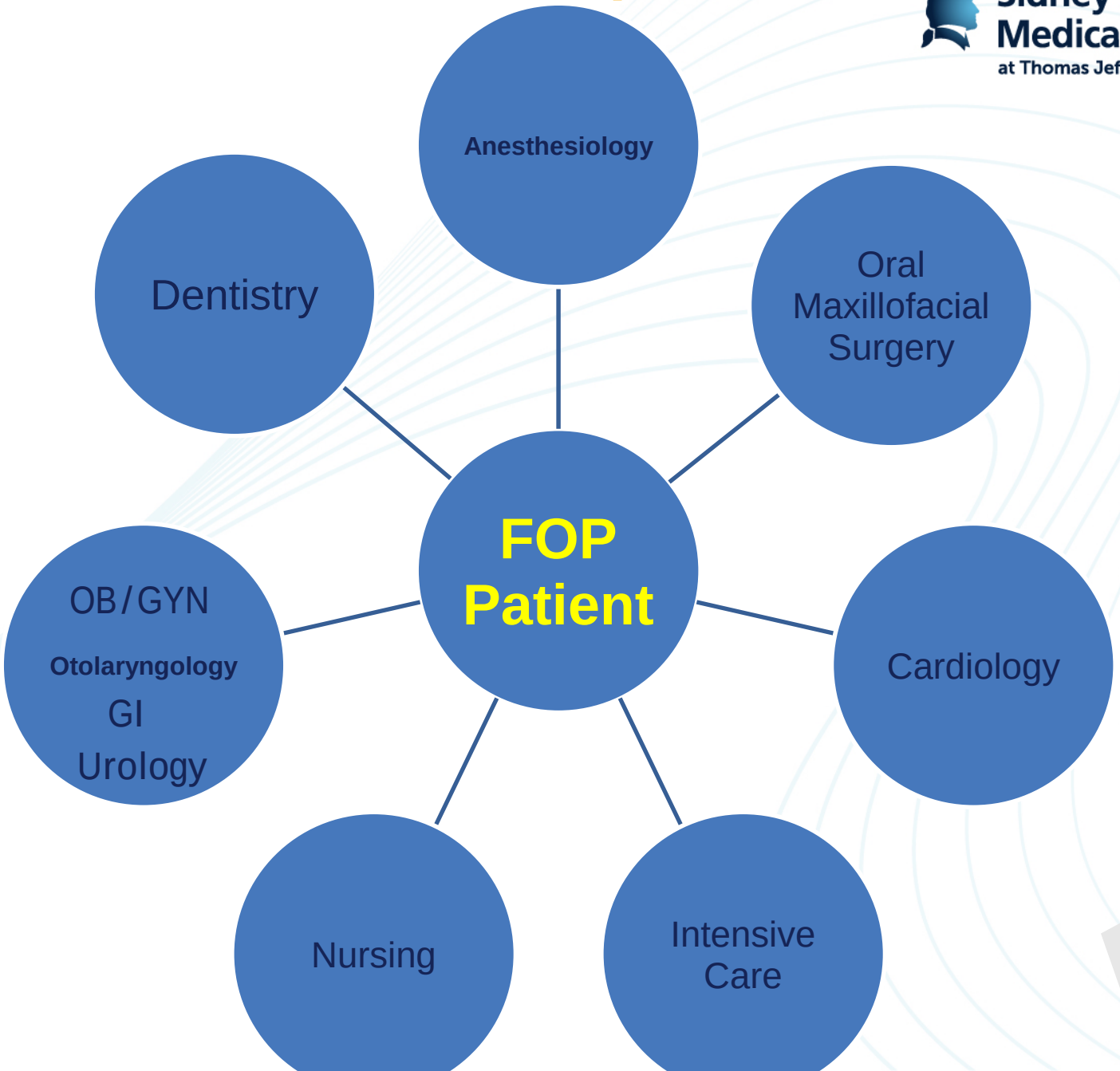

Keys To Success

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- Multidisciplinary effort
- Communication

- Developed unique techniques to manage care of patients who cannot open their mouth
- Plans for failed intubation

How We Prepare for Your Surgery?

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- **Pre-operative evaluation**, focused on airway and pulmonary exam
- **Communication**
  - Specialists
- **Special arrangements**
  - Waiting area
  - Operating rooms
  - Recovery area

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The Challenge

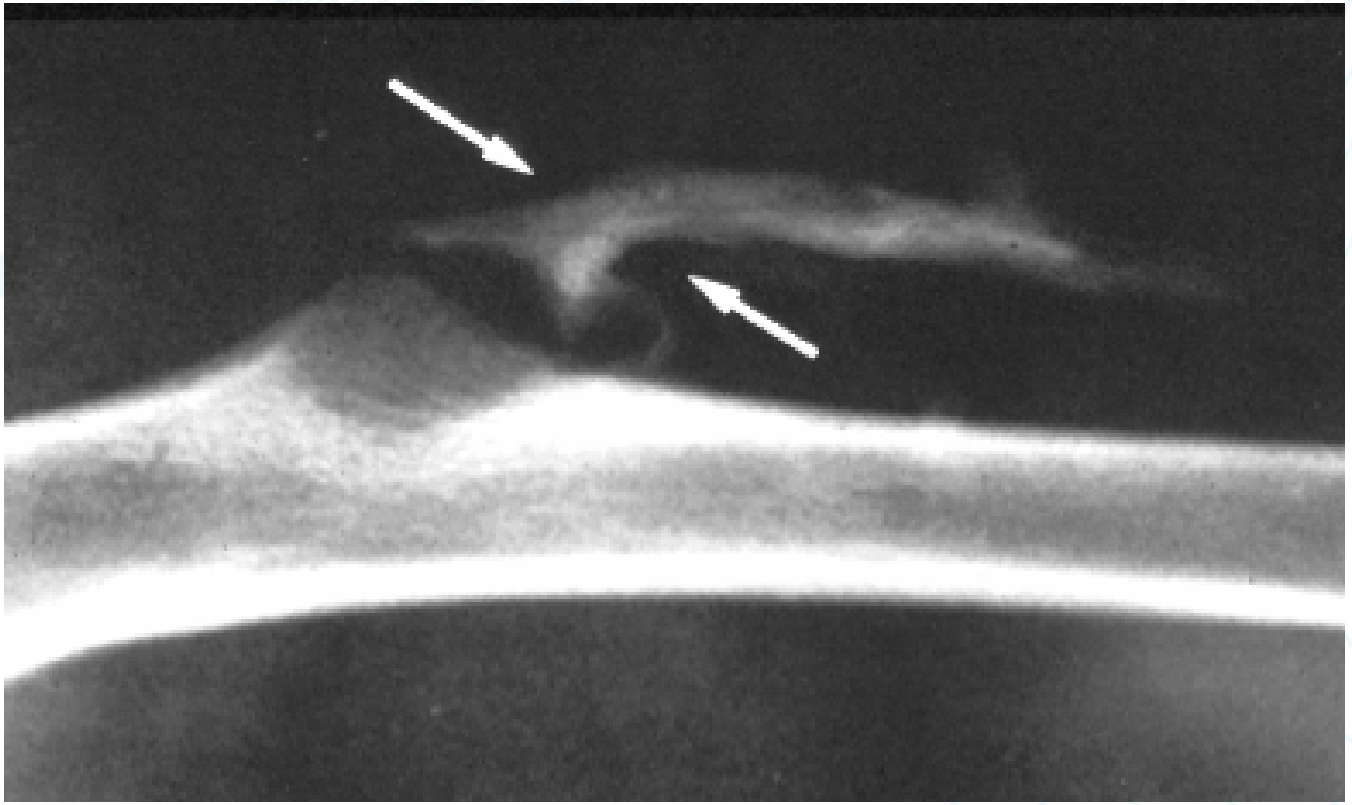
- Position (Truncal Rigidity)
  - Ankylosis of vertebral column, shoulders and elbows
  - Confined to wheel chair, semi-erect

- Injury Susceptibility
  - Any stimulation will lead to bone formation: IV, DL, nerve block

Permanent heterotopic ossification at the injection site after diphtheria-tetanus-pertussis immunizations in children who have fibrodysplasia ossificans progressiva

Thomas F. Lanchoney, BS, Randolph B. Cohen, MD, David M. Rocke, PhD, Michael A. Zasloff, MD, PhD, and Frederick S. Kaplan, MD

From the Departments of Orthopedic Surgery, Pediatrics, and Genetics, University of Pennsylvania School of Medicine, Philadelphia, and the Graduate School of Management, University of California, Davis



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The Challenge

Respiratory Compromise

Other co-morbidities
Diabetes
Asthma
Congenital heart dis.

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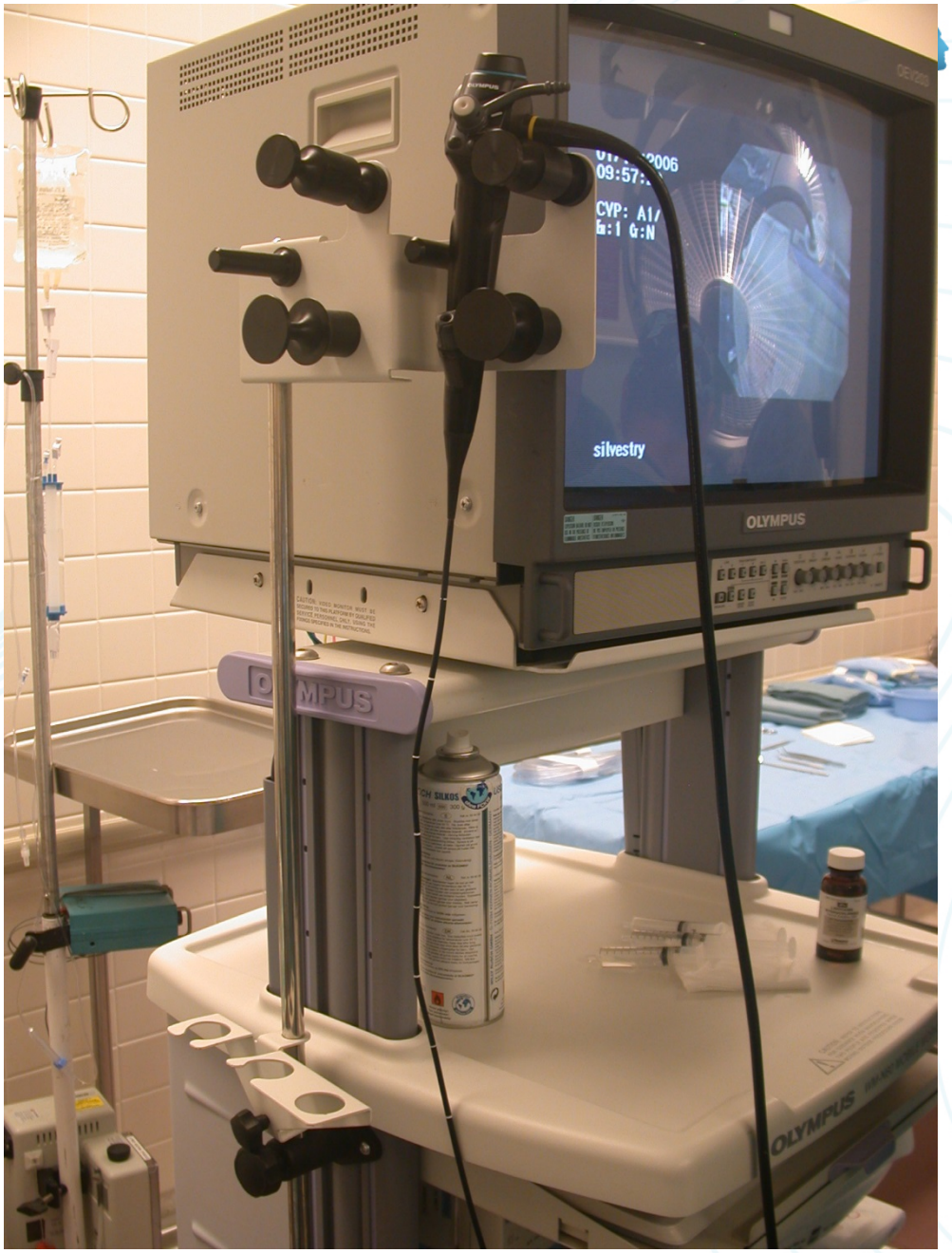

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30
Man Spont
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Press Mode
Press Supp
Standby
Battery Power
N2O
Air
O2
L/min
Total Flow
Off
On
System Power
O2 +

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Fasting Before Surgery

Recommended Dietary Precautions

Fasting - Hours

Age	Milk/Solids	Clear
0 - 5 Mon	4	2
6 - 36 Mon	6	2-3
> 3 Y	8	2-3

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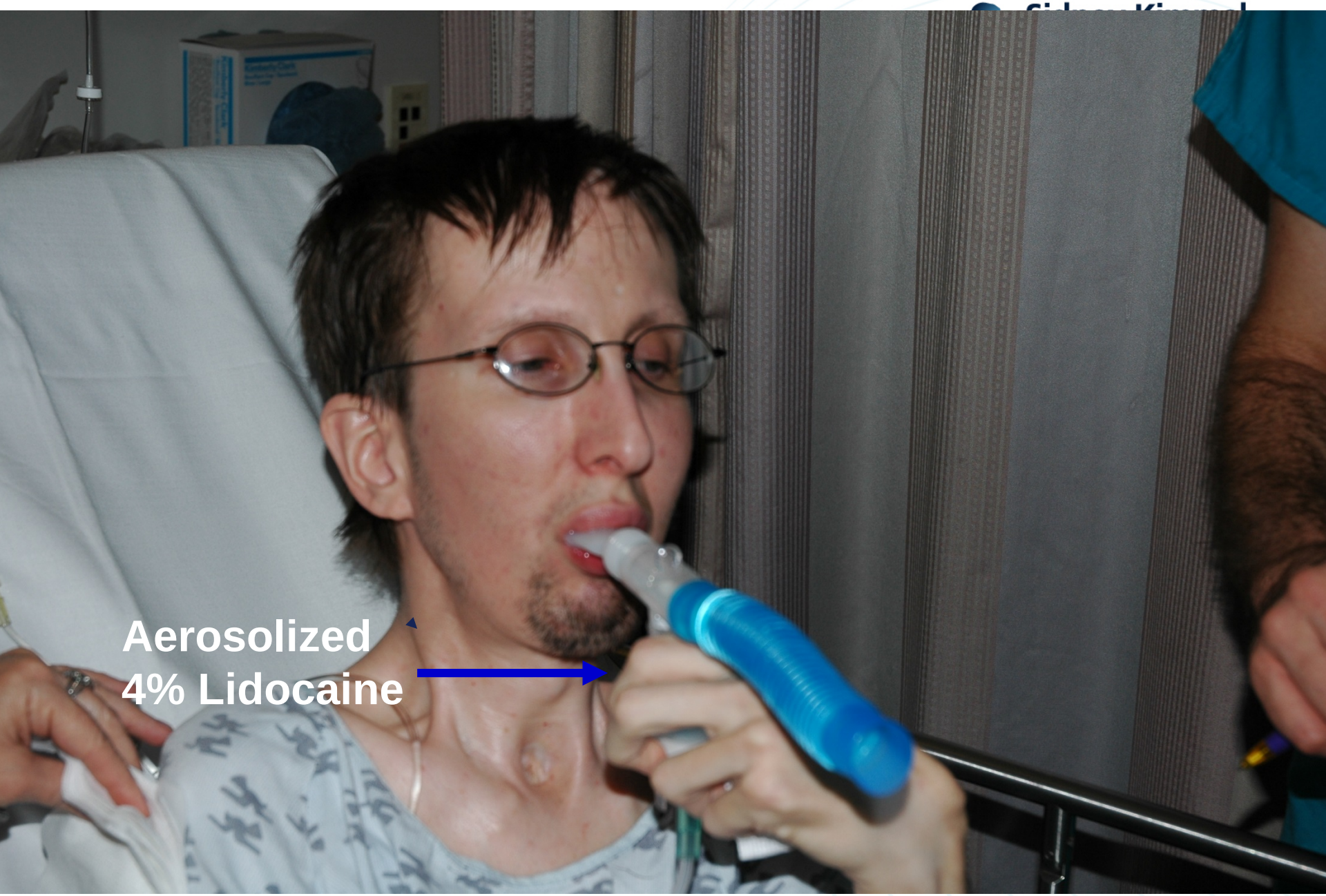
Pre-induction


Aerosolized
4% Lidocaine

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Zvi Grunwald, MD
Physician
Anesthesiology