

# Big Ideas in the Big Easy!



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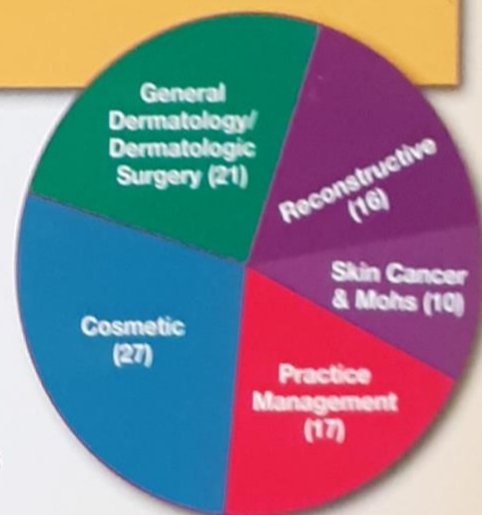
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- View additional ASDS Annual Meeting abstracts
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**OPENING KEYNOTE** Thursday • 9:20 a.m.

**Peter Ricchiuti** *Uncertainty Brings Opportunity*

"Peter is one-half Alan Greenspan, one-half Robin Williams. The best I've heard!" – *SmithBarney*

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American Society for  
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Sessions and events marked with the + symbol are open to Office Staff/Surgical Assistants.

**3:30 – 5 P.M. TARGETED TALKS**

These sessions are detailed talks on specific topics and are offered complimentary. See registration desk in Elite Foyer in advance or at the door just prior to the course start for openings.

**MC345 Blepharoplasty and Brow-lifts for the Dermatologic Surgeon Strand 13A**

**Learning Objectives:** At the conclusion of this session, participants should be able to: understand the periorbital anatomy in order to maximize safety and results; articulate new techniques and advances in eyelid rejuvenation; understand the potential for unique complications in the periorbital area; recite the techniques appropriate for successful blepharoplasty; select the appropriate cosmetic eye procedure for each case; relate a clear understanding of instrumentation and techniques that are useful in this area; and identify relevant anatomic structures for blepharoplasty and possible complications.

Ronald L. Moy, MD; William M. Ramsdell, MD

**MC346 PR, Media and Reputation Management + Strand 12A**

**Learning Objectives:** At the conclusion of this session, participants should be able to: explain the key elements in effective communications with the public; prepare comfortably for media, interviews with magazines; explore public relations opportunities, and gain tips to manage online reputation. A Beauty Editor and an Online Reputation Expert will join the faculty to provide effective communication tips. A Special Excellence in and Commitment to Skin Health Education award will be presented during this session.

**Moderators:** Mona A. Gohara, MD; Ellen S. Marmur, MD

**3:30 p.m. Welcome and Introduction**

Mona A. Gohara, MD; Ellen S. Marmur, MD

**3:40 p.m. PR or Not PR?**

Doris J. Day, MD

**4 p.m. Discussion and Questions**

**4:05 p.m. Media Matters: How to Get on Every Journalist's Speed Dial - The Secret to Sharing Your Expertise with the World**

April Long, Executive Beauty Editor, ELLE Magazine

**4:25 p.m. Discussion and Questions**

**4:30 p.m. Managing Your Online Reputation**

Jennifer Kikenny

**4:50 p.m. Discussion, Questions and Wrap-up**

**SPEAKER READY ROOM**

**Bolden 1**

Wednesday.....9 a.m. – 7 p.m.  
 Thursday .....6:30 a.m. – 5 p.m.  
 Friday .....6:30 a.m. – 5 p.m.  
 Saturday.....6:30 a.m. – 5 p.m.  
 Sunday.....7:30 a.m. – 10 a.m.

**MC347 The ITMP: International Dermatologic Surgery Scientific Contributions + Strand 13B**

**Learning Objectives:** At the conclusion of this session, participants should be able to: articulate the value of the ASDS ITMP project in which the ITMP is working to provide international leadership in dermatologic surgery through the establishment of procedural fellowships using ASDS-developed guidelines in multiple venues; and recite why international educational exchange is crucial to foster awareness and support of dermatologic surgery education. Presentations will include surgical techniques and developments shared during international visits in order to provide clinical education to session attendees. All session attendees may share their own ideas for improving educational exchange to close training gaps in dermatology residency departments as well as comments on the surgical education shared in report visits. ITMP Outstanding Contribution Awards will be presented during this session.

Lawrence M. Field, MD; Gary J. Brauner, MD; Glenn D. Goldman, MD

**3:30 p.m. Introduction**

Lawrence M. Field, MD

**3:32 p.m. ITMP: Growth Update**

Gary J. Brauner, MD

**3:35 p.m. International Dermatologic Surgery Fellowship**

Glenn D. Goldman, MD

**3:43 p.m. The Process of Offering Formal Presentation to Hosts and Then Those Most-frequently Selected**

Lawrence M. Field, MD; Marc B. Roscher, MD

**3:51 p.m. Lessons Learned From My First One Thousand Cases of Mohs Surgery in South Africa**

Pieter du Plessis, MD

**3:59 p.m. Outstanding Contributions Medal Ceremony**

Lawrence M. Field, MD

**4:07 p.m. Slow Mohs Micrographic Surgery in Vulvar Paget's Disease**

Mihaela Leventer, MD; Tiberiu Tebeica, MD

**4:15 p.m. Large Ulcero-nodular Basal Cell Carcinoma Involving Left Temple and Both Palpebrae. Wide Excision and Closure Utilizing Subcutaneous Bipedicled Island Flap and Ftg Under General Anesthesia with Surgical Tumescent Anesthesia**

Sri Lestari K. Setyaningsih, MD

**4:23 p.m. Tummy Tuck with Local Anesthesia**

Ago Harim, MD, MHA, PhD

**4:31 p.m. Vitiligo Surgery: Concept of Stability/Liposuction in India or Managing Post-procedure Pigmentation**

Mysore Nagaraj Venkataram, MD

**4:39 p.m. Vitiligo Surgery: Cellular Grafting**

Salim Thurakkal, MD

**4:47 p.m. Discussion and Wrap-up**

Lawrence M. Field, MD

Learn about new Quest interactive case studies at the ASDS Resource Center #343.

**COLOR KEY**

Cosmetic Dermatologic Surgery

General Dermatology and General Dermatologic Surgery

Reconstructive Dermatologic Surgery

Skin Cancer, Mohs Micrographic Surgery

Practice Management / Regulatory & ADAM Track

Networking, Social, Other



Ago Harlim, MD, MHA, PhD  
Christian University of Indonesia  
Jl Gajah Mada 193 A RT003 RW005  
Kel Glodok Kec Taman Sari Jakarta Barat  
Jakarta, 11120  
INDONESIA

**Registration Type:** 2016 Annual Meeting - Member  
**Badge Name:** Ago Harlim, MD, MH, PhD  
**Member ID:** 61950

We are pleased to confirm your registration for the 2016 ASDS Annual Meeting, scheduled for Thursday, November 10 to Sunday, November 13, at the Hyatt Regency New Orleans. Listed below is a summary of the optional courses and activities you have selected. Please review to assure accuracy.

**Please keep a copy of this form for your records as well as for reference on site.**

**16AMM** 2016 Annual Meeting - Member

**MC347** The ITMP: International Dermatologic Surgery Scientific Contributions Saturday, November 12, 2016 3:30 PM

**Registration will be in the Registration will be located outside the Elite Exhibit Hall**

Wednesday, November 9: 8:00 AM to 6:00 PM Friday, November 11: 6:30 AM to 6:00 PM  
Thursday, November 10: 6:30 AM to 6:00 PM Saturday, November 12: 6:30 AM to 5:00 PM

**Make your Hotel Reservations Now!**

Go to to make reservations online, or call (888) 421-1442 in the USA or Canada (Main Hotel Phone Number) (504) 561-1234.

Hyatt Regency New Orleans, 601 Loyola Ave , New Orleans, LA 70113. PLEASE reference ASDS Annual Meeting when making your reservations. The ASDS Group rate starting at \$269.00. Deadline for ASDS group rate is October 17 2016 or until availability lasts.

**Cancellations and Refunds:**

Registration Fees, less \$100.00 administration fee, will be refunded upon written notice of cancellation received at the ASDS office by October 3, 2016. After October 3, there will be no refund of fees for cancellation or lack of attendance for any reason. Please note: There is no pro-rated fee structure for partial registration, and no refunds for ticketed educational sessions or social activities not attended. A \$25.00 administrative fee will be charged for any individual sessions or functions cancelled within two weeks of the meeting due to food and beverage guarantees.

**Participant Code of Conduct**

Registrants of the ASDS Annual Meeting agree to abide by the Meeting Code of Conduct outlined in the 2016 registration brochure.



This will confirm that the participant signing below, has registered for and attended the  
**2016 ASDS Annual Meeting**  
 November 10-13, 2016

Participant Name: Ago Harlim, MD, MH, PhD

The American Society for Dermatologic Surgery is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians. The American Society for Dermatologic Surgery designates this live activity for a maximum of **24.5 AMA PRA Category 1 Credits™**  
 Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Physician Claims: \_\_\_\_\_ CME Credits

*Ellen S. Marmur, MD and S. Brian Jiang, MD*

*2016 ASDS Annual Meeting Chair and Co-chair*



Attendees are on their honor to claim only the credit designated for the time spent in the activity. Credit is self-reported. To report credit for this meeting via the AAD, log on to their credit recording site and enter the name of the meeting as "**2016 ASDS Annual Meeting**" and the number of credits you are claiming.

For partial credit based on attendance for a portion of the meeting only, below is the day-by-day breakdown:

|   |              |
|---|--------------|
| ❖ Wednesday, November 9: Hands-on Workshops |              |
| Primer for Anatomy                          | 2.50 credits |
| Injectable Techniques                       | 4.00 credits |
| Sclerotherapy and Vein Techniques           | 4.00 credits |
| Tumor Excision/Wound Repair                 | 4.00 credits |
| ❖ Thursday, November 10: Full Day           | 7.50 credits |
| ❖ Friday, November 11: Full Day             | 6.25 credits |
| ❖ Saturday, November 12: Full Day           | 6.75 credits |
| ❖ Sunday, November 13: Partial Day          | 4.00 credits |

For partial day attendance, claim credit hour for hour, in .25 hour increments, according to your attendance in general sessions, coffee talks, afternoon teas, hands-on workshops and the research luncheon.

Time spent in breaks, lunches, the exhibit hall or work group meetings are NOT designated for credit.



**MEMBER**

**Ago Harlim, MD, MH, PhD**

**Jakarta, INDONESIA**



61950

**International  
Traveling Mentor**

**FACULTY**

## **Tummy Tuck with Local Anesthesia**

Ago Harlim  
Universitas Kristen Indonesia

Tummy tuck is a cosmetic surgery procedure used to create a firmer abdomen. Usually it requires general anesthesia which carry out greater amount of costs and risks. We have performed several attempts to use local anesthesia through modified tumescent for tummy tuck, mastopexy, tight reduction, et cetera for several years. As for tummy tuck, there are two kinds of tumescent concentrate used; high concentrate tumescent and low concentrate tumescent. These two tumescent are used for liposuction, undermining to the rib, cut the excessive skin and suture the muscle. Such procedure will preserve the anesthesia which will last up to around 10 hours. Therefore, the patient can go home within the same day of the surgery without any complication.

Keywords : *tummy tuck, local anesthesia*

### **Biography**

Ago Harlim MD graduated from Universitas Kristen Indonesia, Jakarta. He trained in plastic and reconstruction surgery in First military University in Guangzhou. He completed Magister Hospital Administrion in 2000, specialist in Dermatovenerology in 2005 and PhD from Universitas Indonesia in 2015. Now, he is the director of Dermatovenerology Department in Universitas Kristen Indonesia and JMB skin care and aesthetic surgery Clinic. He is a mentor from ITMP (International Traveling Mentorship Program) which affiliated with ASDS (American Society for Dermatologic Surgery). He has published more than 0 papers in reputed journals and has been serving as a reviewer reputed journals.

## **Tummy Tuck with Local Anesthesia**

Ago Harlim  
Universitas Kristen Indonesia

Tumescent Anesthesia is A technique or regional anesthesia of the skin and subcutaneous fatty tissue by means of direct infiltration of large volumes of a dilute local anesthetic it involves 5-to20-fold dilution of the standard commercially available lidocaine (1%) Epinephrine (1:100,000), Sodium Bicarbonate (10 mEq perliter) in a physiologic saline solution. This technique is not without risk of complications.

Tumecent technique for local anesthesia has made it possible to do:

- Liposuction
- Demabrasion
- Face lift
- Hair transplants
- Large cutaneus excisions (tummy tuck, mastopexy, tight reduction etc)

Tumescent works a large volume of diluted epinephrine infiltrated into relatively a vascular adipose tissue produces widespread prolonged and profound vasoconstriction

### **Local anesthesia**

Due to the unique pharmacokinetic profile of this technique lidocaine doses of 35 mg/kg bodyweight have been shown to be safe for liposuction procedures. Tumescent lidocaine is absorbed very slowly from subcutaneous tissues producing lower, and more delayed, peak blood levels compared to other routes, as well as extended postoperative analgesia. Slow systemic absorption allows the rapid hepatic plasma clearance of lidocaine to maintain safe local anaesthetic blood levels. This slow absorption from subcutaneous tissue has been likened to a depot injection. Careful attention must be given to appropriate local anaesthetic dosage alterations in cases of co-administration with agents affecting hepatic drug clearance or conditions reducing liver blood supply. Adherence to these pharmacological principles has produced an exemplary safety record for this technique to date.

### **Lidocaine and Bupivacain**

the recommended maximum safe dose for lidocaine and bupivacaine is 10x higher in tumescent solution. Mixture lidocaine with bupivacaine make cardiac arrest. even , now. i am not using bupivacaine anymore, i can get enough time to do the tummy tuck just with lidocaine. Maximum safe dosage is estimated to be 35-55mg/kg of lidocaine. This technique is most often used in conjunction with IV sedation. Its anesthetic effects can last up to 18 hours.

Lidocaine toxicity is a concern given the large amounts used in this technique. Epinephrine induced vasoconstriction reduces the rate of systemic absorption of lidocaine and peak plasma levels do not occur until 12-14 hours following injection; therefore, signs of lidocaine toxicity may not appear until well into the postoperative period. Lidocaine is metabolized via hepatic CYP3A4. Use of lidocaine along with medications that inhibit or are metabolized via CYP3A4 can lead to toxic plasma levels. Another concern, especially for liposuction procedures where larger volumes of tumescent fluid are injected, is volume overload, which can lead to significant pulmonary edema and fluid overload.

### **Epinephrine**

Epinephrine, a hormone derived from the adrenal medulla, is also known as *adrenaline*. Pharmacologically it acts as both an alpha and a beta agonist, increasing heart rate as well as peripheral vasoconstriction and blood pressure. More importantly for tumescent anesthesia, epinephrine is a potent capillary vasoconstrictor responsible for the dramatic hemostasis and the slow systemic lidocaine absorption associated with the tumescent technique.

### **Tachycardia.**

Patients may give a history of some type of adverse reaction to epinephrine. Typically this involved dental anesthesia in which the patient experienced the unpleasant pharmacologic effects of rapid systemic absorption. Injection of a drug into the highly vascular oral (periodontal, gingival, or buccal) mucosa is more likely to produce rapid systemic absorption than injection into less vascular tissue. Rapid absorption is a pharmacologic phenomenon, not an allergic reaction.

Rapid absorption of epinephrine can produce tachycardia, tremors, and anxiety. In my experience, however, patients who have experienced tachycardia from rapid absorption of epinephrine after dental anesthesia do not have a similar reaction with tumescent anesthesia for liposuction.

Liposuction surgeons should be cautious in assessing patients with a confusing history of an adverse reaction to epinephrine. Patients taking pseudoephedrine for nasal decongestion or "health food" supplements that contain ephedrine-like chemicals are predisposed to epinephrine-associated tachycardia. Also, the patient may have an undiagnosed primary cardiac arrhythmia (dysrhythmia), an occult cardiac valvular disease with intermittent tachycardia, or a subclinical metabolic disorder (e.g., hyperthyroidism, carcinoid, pheochromocytoma). When in doubt, the surgeon should consider an internal medicine consultation.

If the patient's history is clearly consistent with rapid absorption of epinephrine and the consequent pharmacologic response with tachycardia, tumescent liposuction probably poses minimal risk. In some patients, especially older persons, it is wise initially to limit the amount of liposuction to relatively small volumes. Once the first procedure has been completed without evidence of tachycardia, tremor, or an anxiety reaction, the surgeon can proceed 1 or 2 months later with a standard dose of epinephrine for tumescent anesthesia.

The routine use of clonidine (0.1 mg) given preoperatively to patients without bradycardia or hypotension has greatly reduced the incidence of intraoperative and postoperative tachycardia with tumescent local anesthesia.

**Regional Variation.** The physician can vary the concentration of epinephrine depending on the particular area that is being targeted for tumescent liposuction. In areas that tend to be associated with increased intraoperative bleeding, such as upper abdomen, back and flank, and especially fibrous areas of fat, it is reasonable to use 1 mg of epinephrine/L tumescent anesthetic solution. For other areas, 0.65 mg of epinephrine/L is usually sufficient.

Safety Checks

#### **Basic Solution.**

A basic, minimally effective solution of tumescent local anesthesia consists of 500 mg of lidocaine, 0.5 mg of epinephrine, and 10 mEq of sodium bicarbonate in 1 L of NS. It is specifically intended for the surgeon who wants to check the completeness of the anesthesia just before beginning liposuction. This may be necessary if someone other than the surgeon, such as a registered nurse or another physician, has done the infiltration.

Checking the completeness of the local anesthesia is intended to detect areas of subcutaneous fat that are not completely anesthetized. This should be done immediately before initiating liposuction. While advancing an infiltrating cannula throughout the



tumescent compartment of fat, the surgeon or anesthetist should instruct the patient to indicate any area of incomplete anesthesia by saying the word “there” whenever the cannula causes even a minimally painful sensation. The surgeon can then infiltrate additional anesthetic solution exactly where it is needed.

The minimal concentration of lidocaine in the basic solution is usually sufficient to achieve complete anesthesia and vasoconstriction.

### Normal Saline

The most common lidocaine solvent for the tumescent technique is isotonic physiologic saline (0.9% NaCl), or NS. As defined by the United States Pharmacopeia (USP), NS contains 154 mEq/L of both sodium and chloride. Plasma contains 142 mEq Na/L.

Typically, sodium bicarbonate ( $\text{NaHCO}_3$ , 10 mEq/L) is added to the lidocaine solution to neutralize the pH and thus reduce the stinging pain that otherwise occurs when acidic commercial lidocaine is infiltrated subcutaneously in an alert patient. Thus a liter of tumescent solvent will contain 164 mEq of sodium.

### TOXICITY

The most frequent caused of toxicity are from either: accidental intravascular injection, overdose of the local anesthetic solution, toxic effect occurs mainly in the central nervous system and the cardiovascular system, CNS symptoms earlier than CVS Symptoms. So it better use blunt cannula to infiltrated the tumescent anesthesia. Other problem is overdose and You have to recognize the toxicity symptoms

**Table 2. Rections That Can Arise with the Used of Local Anesthesia**

| Symtoms | Caused | Remarks / Actions to take |
|---------|--------|---------------------------|
|---------|--------|---------------------------|

|  |                                |   |
|--|--------------------------------|---|
| <p>CNS irritability like<br/>Headache<br/>Anxiety<br/>Twitching<br/>Seizures<br/>CVS Depressions<br/>Hypotension<br/>Respiratory<br/>Depressions</p> | <p>Anesthetic<br/>Overdose</p> | <ul style="list-style-type: none"> <li>•Stop giving anesthetic solution</li> <li>•Initiate supportive measures; give appropriate medications <ul style="list-style-type: none"> <li>•Airway, ventilation, and circulatory management</li> <li>•Anticonvulsants (Diazepam, thiopental)</li> <li>•CVS Drug (ephedrine for hypotension, atropine for bradycardia)</li> </ul> </li> </ul>   |
| <p>Tachycardia<br/>Palpitations<br/>Apprehensions<br/>Hypertensions</p>  | <p>Epinephrine</p>             | <ul style="list-style-type: none"> <li>•Hold procedure; wait for 10-15 minutes and observe before proceeding with giving more epinephrine-containing solutions</li> <li>•Reassure and calm patient</li> <li>•May give phentolamine or propranolamine for emergencies; <ul style="list-style-type: none"> <li>•Esmolol (S-V tachycardia, intraop tachycardia &amp;/or hypertensions);</li> <li>•Sotalol (arrhythmias, angina pectoris &amp; hypertension)</li> </ul> </li> </ul> |

|   |                         |   |
|---|-------------------------|---|
| <p><b>Bradycardia<br/>Hypotension<br/>Nausea<br/>Pallor, fainting</b></p> | <p><b>Vasovagal</b></p> | <ul style="list-style-type: none"> <li>•Postural treatment <ul style="list-style-type: none"> <li>•Head lower than heart</li> <li>•Elevate feet 2 pillows up</li> </ul> </li> <li>•If associated with CNS signs of overdose, treat as such</li> </ul> |
|---|-------------------------|---|

|  |  |  |
|--|--|--|
| <p><b>Edema, erythema,<br/>Difficulty in breathing<br/>OR<br/>Bronchospasm,<br/>tachycardia,<br/>hypotension</b></p> | <p><b>Anaphylaxis<br/>(Allergy or<br/>acute<br/>hypersensitivity<br/>reaction)</b></p> | <ul style="list-style-type: none"> <li>•Rare</li> <li>•Administering local anesthetic 1 ml at a time in a slow graded dose for hypersensitivity to the solution</li> <li>•Epinephrine, parenteral steroid like Solu Cortef (hydrocortisone), Solu-Medrol methyprednisolone)</li> <li>•Topical bronchodilator-nasal or oral spray may be given</li> <li>•Ready for emergency cricothyroidotomy or tracheotomy if above measures fail</li> </ul> |
|--|--|--|

**Control of toxicity (from Selected Reading in Plastic Surgery, vol 8, No 4,p.10,1995**

**Airways**

- a. Establish and maintain airway
- b. Endotracheal tube may be inserted
- c. Suction secretions

**Breathing**

- a. Oxygen inhalation
- b. Pressure ventilation may be needed (Ambubagging, pressure or volume respirator)

**Circulations**

- a. Postural measures like lowering the level of the head down to the heart level or elevating the feet and legs if necessary
- b. IV fluids or at least an IV LINE. Infuse crystalloids if hypotensive or drug support for hypotension, bradycardia etc.

Drugs can be use For CNS irritability is Diazepam 5-10 mg IV OR, Thiopental 50 mg IV. Respiratory depression is intubation and Artificial or positive pressure ventilation. For hypotension is Ephedrine 12.5 -15 mg IV. For bradycardic is Atropine 0.4-0.6 mg IV

Administrations of local anesthetics prerequisites for peripheral nerve anesthesia minimum requirements. I suggest that clinics where local anesthetic solution is used prior to performing

surgical or non-surgical procedures should have the following minimum requirements: monitoring equipment and resuscitation or emergency (“e”) sets

#### Set for airway and ventilatory management

- Oral airways
- Laryngoscope (with adult and pediatric blades and spare batteries)
- Endotracheal tubes (adults and pediatric sizes)
- Means for mechanical ventilation (ambubag)
- Oxygen tank (1-2 portable tanks) with the appropriate gadgets and attachments
- Oxygen mask (adult and pediatric)
- Oxygen tube
- Suction machine
- Suction tubes
- Gauge 14 IV cannula for emergency use as an alternative to cricothyroidotomy

#### Set for intravenous access and circulatory management

##### Intravenous fluids particularly crystalloid solutions (e.g. D5LR5)

- Intravenous tubings (macroset & microset)
- Intravenous cannula (gauge 16,18,20,22 & 24)
- Tourniquets
- Adhesive tape
- Syringes with needles (1cc, 2.5-3cc, 5cc & 10cc)
- Make sure you have an IV pole

##### Medicine bag or tackle box containing emergency medicines for clinic use

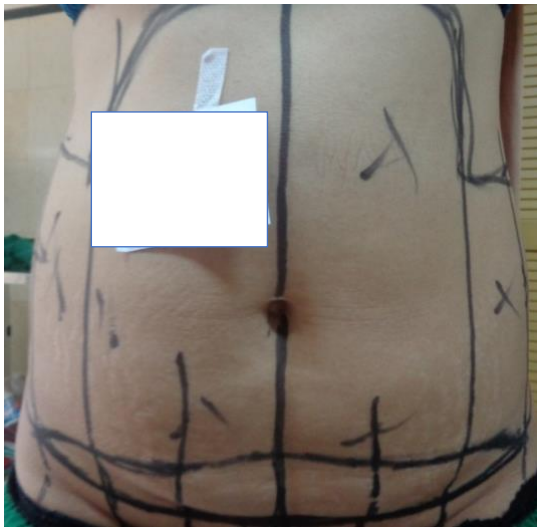
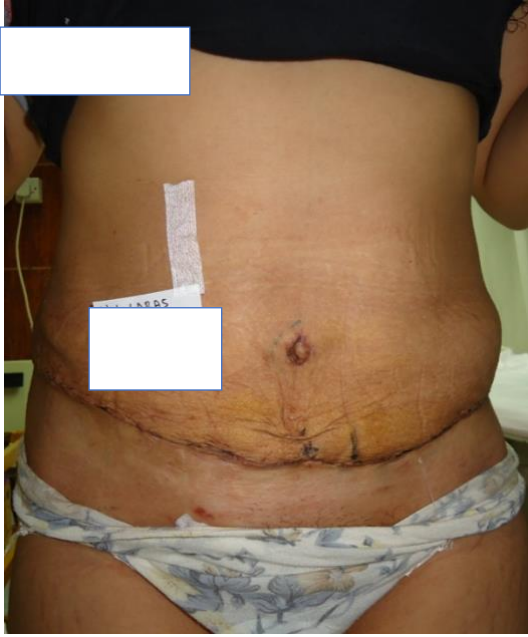
- IV Medications
  - Epinephrine 1:1000 ampule
  - Diphenhydramine HCl vial for IM injection
  - Hydrocortisone IV or IM vial
  - Ephedrine 1mg/cc
  - Diazepam 10mg/ 2cc or Midazolam 2mg/cc
- Salbutamol inhaler with o Oral Medications
  - Nitroglycerin or Isosorbide nitrate sublingual tablet
  - Nifedipine 5 & 10mg capsule for sublingual use (puncture and squeeze out content to deposit under the tongue)
  - Propanolol tablet
  - Diphenhydramine tablet
  - Dexametasone tablet
  - Salbutamol tablet
  - Mefenamic acid tablet, Naproxen sodium tab, Etoricoxib tab, Tramadol tab or any pain reliever
  - Nitroglycerin patch without steroids

**Table 4. Routine Emergency Drugs Required in the performance of Regional Anesthetic Procedures From: Regional Anesthesia, by Hann, Marc, et al. Mosby. 1996. P.21**

| Drug            | Suggested Dosage            | Indications  |
|-----------------|-----------------------------|--|
| Atropine        | 0.2 to 0.4 mg IV Increments | Bradycardia from vagal dominance   |
| Midazolam       | 1-2 mg IV Increments        | Local anesthetic seizure activity  |
| Diazepam        | 5-10 mg increments          | Local anesthetic seizure activity  |
| Ephedrine       | 5-10 mg increments          | Hypotension from sympathetic block   |
| Lidocaine       | 50-100 mg IV bolus          | Ventricular arrhythmias  |
| Thiopental      | 50-100 mg IV increments     | Local anesthetic seizure activity  |
| Succinylcholine | 100 mg bolus                | Muscle relaxation airway activity (facility for positive pressure ventilation should be available) |

DESIGN





**CONCLUSIONS**

Tummy tuck with tumescent anesthesia is safe

## Reference

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