

Haiti Surgical Mission

A Collaboration between Living Hope Haiti,
Baptist Health South Florida and Double Harvest Hospital

Thursday, May 16 – Sunday, May 19, 2019

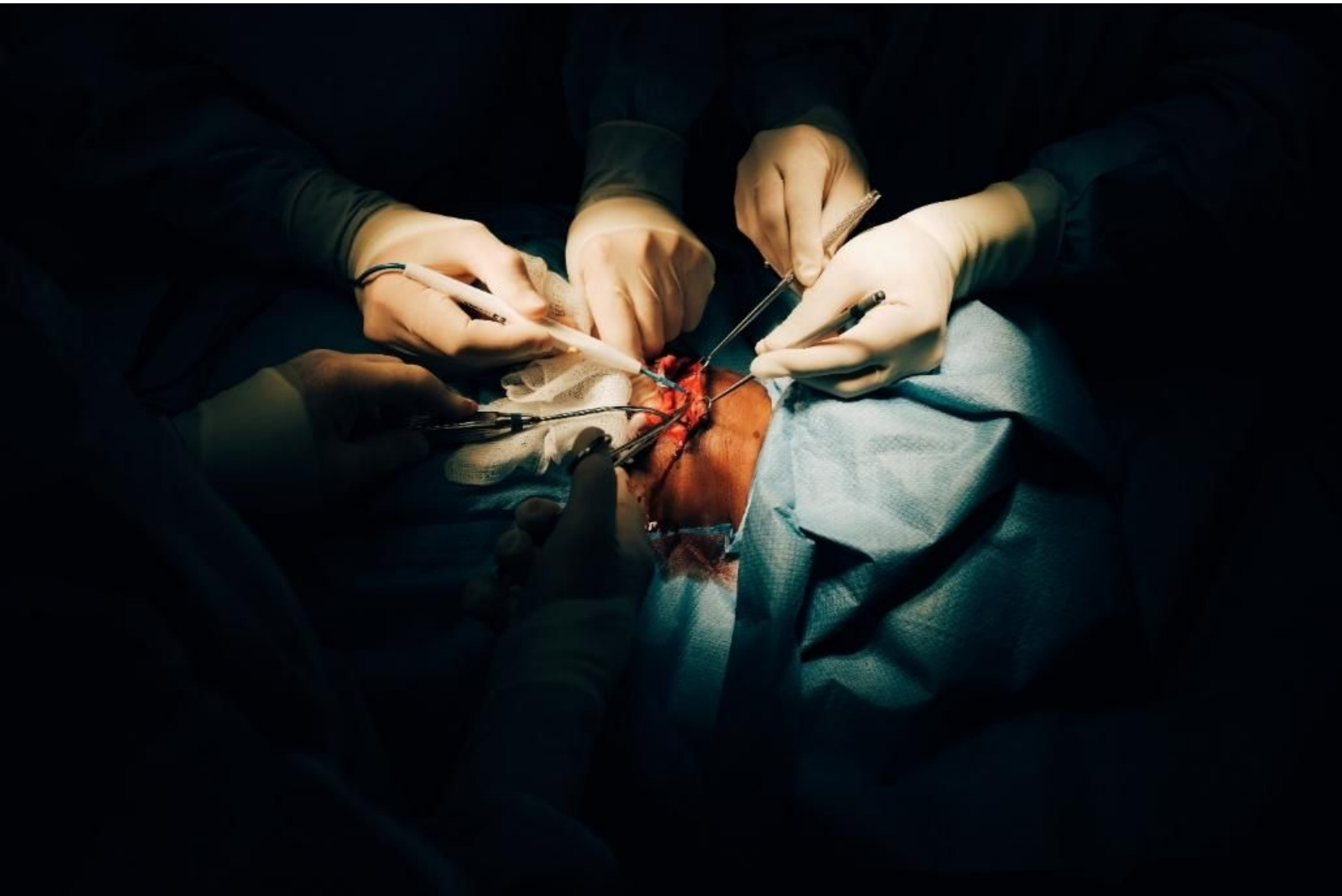
Prepared by Robert Udelsman, MD, MBA, FACS, FACE



Haitian Boy with Tire, Noah Mostkoff, 2019

Dedication, Purpose and Dissemination

This report is dedicated to the people and patients of Haiti who suffer the consequences of poverty and infirmity. It also recognizes the remarkable achievements of our team who devoted their time, resources and compassion. It is disseminated to all members as it reflects their contributions. You are welcome to share it in an appropriate and professional manner.



Healing Hands, Noah Mostkoff, 2019

Overview

A surgical mission organized as a collaborative effort between Living Hope Haiti and Baptist Health South Florida (BHSF) went to Haiti from May 16 - May 19, 2019 to work at Double Harvest Hospital, Haiti. This collaboration has been ongoing for 13 years under the organization of Calvin Babcock with the assistance BHSF and has resulted in over 35 surgical missions and the performance of over 1,400 procedures for the people of Haiti. Michele Ryder, RN had run the surgical mission program for BHSF for many years and her contributions are legendary. Hector Delgado, RN has assumed this critical role and his commitment is noteworthy. All of the procedures have been performed at the Double Harvest Hospital directed by Peter Pierrot, MD. These have included the repair of massive inguinal hernias, hydroceles, breast and gynecologic surgery as well as excisions of benign and malignant tumors of the trunk and extremities.

The people of Haiti live under conditions of extreme poverty. They suffer from a lack of employment and are at daily risk for obtaining basic necessities including food and clean water. There is no organized national health system and relatively straight-forward medical conditions such as acute appendicitis are frequently untreated and often fatal.

The people of Haiti have an array of conditions that could be reconciled by surgical intervention. These include massive goiters (thyroid enlargement) that result in obstruction of the trachea and esophagus, inhibiting breathing and swallowing, respectively. However, thyroid surgery has not been performed as part of this mission due to inherent risks associated with thyroid surgery including, bleeding, infection, recurrent nerve injury (vocal cord nerve), parathyroid injury and the loss of thyroid function combined with the inability to obtain life-long thyroid hormone replacement. The need for the surgery is obvious, however, it was not clear if the risks could be rendered acceptable.

As the Director of the Endocrine Neoplasia Institute at the Miami Cancer Institute I was aware of the need for thyroid surgery in Haiti and over a year ago began to consider the feasibility and safety requirements. I joined a previous general surgery mission and visited two hospitals in Haiti to review their resources and capacity. I concluded that The Double Harvest Hospital was well-organized and due to proximities of the operating rooms, recovery room and staff dormitory, the requisite elements to perform thyroid surgery safely were present in this resource-challenged environment. I also examined 7 patients with massive goiters and determined that their surgical indications were clear and desire for surgery extreme.

Months of planning were required. Due to concerns of post-operative bleeding, I applied for and received a grant from Ethicon to supply surgical thermal energy devices (Harmonic Scalpels) to mitigate against the risk of post-operative bleeding. Incidentally, there are no blood banking facilities, however, our o-negative volunteers are a potential source of whole blood. All of the surgical equipment supplied by Baptist Hospital (BHH) was meticulously organized under the supervision of Ytiema Sony, RN and Hector Delgado, RN. Two previously

planned thyroidectomy missions had been organized and cancelled due to ongoing political instability in Haiti.

This surgical mission was a combination of Thyroid/Head and Neck Surgery and General Surgery. The general surgery team was led by George Mueller, MD and Jorge Brieva-Montalvo Sr, MD.

We were finally ready to undertake our first surgical mission designed to perform thyroid surgery in Haiti. Our thyroidectomy team included critical and experienced individuals including anesthesiologists with sophisticated airway management skills, Ronen Harris MD and Chantal Policard Jean-Pierre, MD. My team included our lead advanced practice nurse, Rafael Alonso, APRN, as well as Ytiema Sony, RN. We were fortunate to have another expert in thyroid and head and neck surgery join us, Geoffrey Young, MD and his physician assistant, Noah Hershel Mostkoff, PA-C. In the OR we were joined by Jenilice Novoa Miralles, RN and Viviana Castillo, CRNA as well as Beatrice Young, ORT. We were also able to recruit the assistance of our talented PACU and ICU nurses, Farah Obias-Lofaso, RN, Howard Zinhagel, RN, Arlette Choe, RN, Arturo Pena, RN, Andrew Gonzalez, RN and Sam Saturne. In addition, our OR work room team included Hughes Desruisseau and Lianys Gonzales. Hilder Disotuar joined us as our Biomedical Engineer. Our kitchen was supplied, organized and run by Tony Machin with the assistance of Nikki Holbrook and Beatrice Araque. Linda Dwyer is the dedicated Patient Coordinator with Living Hope Haiti.

We were also assisted by Anna Mangiardi, Phillippe Hans Jean-Pierre and Jake Wengler. Solon was our bus driver and Guerrier Pierre our interpreter. Security was provided by Sweet Lilly Coriolone, Boss Greg and members of the Haitian police force.



Calvin Babcock, Founder, Living Hope Haiti

Surgical Mission

To deliver safe and appropriate surgical care to the proud patients of Haiti who suffer immeasurable hardship and are in desperate need of surgical treatment.

Ethical and Philosophical Considerations

The standard of medical care in Haiti is vastly different than the United States. The patients are uniformly indigent and, for the most part, lack formal education beyond an elementary level. They are a vulnerable population. The standard of informed consent in Haiti is simply asking the patient if they desire and agree to undergo surgery. We held ourselves to a higher level and in every case described the proposed procedure as well as the potential risks, benefits and complications. I also requested permission from every one of my patients to obtain pre-, intra- and post-operative photographs that would be used for educational and descriptive purposes and could potentially be used for publication and philanthropy. Although I considered employing Baptist Hospital informed consent forms both for surgery and photographs, this seemed disingenuous and inappropriate as this was not a Baptist facility and such forms have no meaning in Haiti. In every case, bilingual interpreters were used and all of the patient's questions and concerns were witnessed, respected and addressed.

In preparing to perform thyroid surgery in a resource-challenged environment it is paramount that deleterious outcomes are minimized and that patients are not rendered to a chronic condition worse than their primary disease. Although total thyroidectomy would have been an appropriate operation for many of these patients if they lived in an environment with unlimited access to thyroid hormone replacement, such a procedure is inappropriate in Haiti where life-long access to thyroid hormone cannot be assured. Accordingly, every procedure was designed to leave adequate residual thyroid tissue *in situ* to assure physiologic thyroid hormone production. Furthermore, we recognized that some patients could pose unacceptable operative risks due to advanced comorbidity or uncontrolled thyrotoxicosis.

Bleeding during or after thyroid surgery is life-threatening. Accordingly, we 1) employed a sophisticated team including two experienced surgeons and OR technicians, 2) obtained a grant from Ethicon to supply advanced thermal energy devices, 3) employed drains in all but one case, 4) made reasonable attempts to control chronic hypertension present in the majority of patients 5) utilized exquisite post-operative nurses in the ICU/recovery room and 6) did not perform thyroidectomies on our penultimate day to ensure sufficient post-operative observation time.

Anesthesia issues are complex and potentially dangerous in patients with massive goiters. Accordingly, we assembled an experienced anesthesia team that possessed the requisite skills.

Credits

This is a complex undertaking and my primary responsibility was organizing the thyroid/head and neck team and caring for our patients. I also recognized the importance of documenting these events and have made every effort to credit our remarkable team. Nonetheless, it is almost certain that by acts of omission I have failed to, or insufficiently, acknowledge individuals who were critical to our mission. To those I extend my sincere apologies and would be happy to modify this report if so informed.

Team Members

Name:	Role:	Organization:
Calvin Babock	Founder	Living Hope Haiti
Linda Dwyer	Coordinator Living Hope Haiti	Living Hope Haiti
Robert Udelsman, MD	Endocrine/Head and Neck Organizer/Surgeon	BHH
Geoffrey Young, MD	Endocrine/Head and Neck Surgeon	BHH
George Mueller, MD	General Surgeon	Bethesda Hospital
Jorge Brieva-Montalvo Sr, MD	General Surgeon	BHH
Ronen Harris, MD	Anesthesia	BHH
Chantal Policard Jean-Pierre, MD	Anesthesia	UM Jackson South
Peter Pierrot, MD	Lead Physician	Double Harvest
Hector Delgado, RN	OR Coordinator / OR Staff	BHH
Ytiema Sony, RN	OR Coordinator	BHH
Martha Pearson, RN	Pre-op	SMH
Rafael Alonso, APRN	Pre-op	BHH
Jenilice Novoa Miralles, RN	OR	BHH
Beatrice Young	OR	BHH
Noah Hershel Mostkoff, PA-C	OR	BHH
Viviana Castillo, CRNA	OR	BHH
Farah Obias-Lofaso, RN	PACU	BHH
Howard Zinhagel, RN	PACU	BHH
Sam Saturne	PACU	BHH
Arlette Choe, RN	PACU	BHH
Arturo Pena, RN	PACU	BHH
Andrew Gonzalez, RN	PACU	BHH
Hilder Disotuar	Bio Med Engineer	BHH
Hughes Desruisseau	Work room / Sterilization	BHH
Lianys Gonzales	Work room / Sterilization	BHH
Tony Machin	Lead Chef	BHH
Nikki Holbrook	Assistant Chef	Volunteer
Anna Mangiardi	Assistant	Volunteer
Beatrice Araque	Assistant Chef	Volunteer
Phillippe Hans Jean-Pierre	Assistant	Volunteer
Jake Wengler	Assistant	Volunteer
Guerrier Pierre	Interpreter	Living Hope Haiti

Solon	Bus driver	Living Hope Haiti
Sweet Lilly Coriolone	Security	Haiti Police
Boss Greg	Security	Haiti Police
2 Haitian Police	Overnight Security	Haiti Police
Haitian Police	Motorcycle Escorts	Haiti Police
	Maintenance Crew at Double Harvest	Double Harvest
Maritza Camps	Coordinator	BHH

Team Logistics

- I. Extensive pre-mission planning, equipment selection and team organization



Ytiena Sony, RN

Hector Delgado, RN and Linda Dwyer

- II. Wednesday – Day Prior to Departure
 - a) All surgical supplies, instructions, medications and food are packed into duffle bags (40 bags)
- III. Thursday – Departure Day
 - a) Entire team (N=39) fly to Haiti together
- IV. Thursday – Arrival in Haiti
 - a) Gather supplies / load bus

b) Travel to Double Harvest in Croix Des Bouquet under police motorcycle escort

Security

Security was paramount due to the political instability and frequent violent demonstrations occurring in and around Port-au-Prince. These concerns resulted in the following statement issued by the Department of State: *There is an ongoing risk of widespread, violent, and unpredictable demonstrations in Port-au-Prince and elsewhere in Haiti. Due to these demonstrations, on February 14, 2019, the Department of State ordered departure of all non-emergency U.S. personnel and their family members. The U.S. government has limited ability to provide emergency services to U.S. citizens in Haiti.*

Due to these concerns, the vast majority of humanitarian aid organizations postponed ongoing missions to Haiti. In our case, two planned and organized surgical missions were cancelled due to violent episodes. Calvin Babcock and his team, with vast long-term contacts in Haiti, went to extreme lengths to ensure the safety of our voluntary team members.



School Bus



Armed Escort



Our mission was accomplished without evidence of intimidation or political instability. Haiti was calm. Our tranquility was due to the meticulous planning and security provisions organized by Calvin Babcock.

- V. Thursday – Arrive at Hospital
 - A. Unpack bus
 - B. Organize supplies
 - C. Set up ORs (N=3)



- D. Begin Triage for the patients who arrive days in advance





Patients with Triage Instructions (arrows): Name, Location, Procedure

Patient Sources:

- 1) St. Michele (6 hours away by bus) – Arrive on Wednesday
 - 2) Double Harvest patients
 - 3) Walk ins (no patients are turned down for evaluations)
- E. Triage (Nursing and Physicians)
- 1) Paper Adhesive Tape marked and placed on patient
 - a) Name / location
 - b) Medical issues

- c) Severity 1-5 (1 most urgent to 5, least urgent)
- d) Surgical site
- e) Need for general anesthesia
- F. Intake
 - a) BP, weight
- G. Begin operating on Day 1 and in this case, finished at 11:30 pm
- H. Postop recovery and Overnight stay
- I. Kitchen
 - a) Organize and cook 3 meals per day for staff/patients



Beatrice Araque

Nikki Holbrook and Tony Machin (Chef)

Summary of Screening

Patients evaluated \approx 200

Patients discharged due to significant medical comorbidity precluding surgery – 11

Patients discharged for nonsurgical issues – 20

Patients offered surgery – 60

Major operations performed – 35

Minor operations performed – 14

Total operative cases – 49

(Biopsies transported to BHH – 2)

Patients triaged for surgery but, denied due to insufficient time – 7
 (These patients will be prioritized to go first during the next Mission)

Endocrine / Head and Neck Patient Evaluations

Patient #:	Name:	Demographics:	Diagnosis:	Disposition:
1	NA	3yo / Male	Lip laceration	No treatment indicated
2	PS	51yo / Female	Massive goiter	Right Thyroid lobectomy / Isthmusectomy
3	DN	32yo / Female	Graves' Disease	Surgery deferred due to severe thyrotoxicosis
4	AO	49yo / Female	Massive goiter	Right Thyroid lobectomy / Isthmusectomy
5	PL	32yo / Female	Massive goiter	Right thyroid lobectomy / Subtotal left thyroid lobectomy
6	CG	23yo / Female	Massive goiter	Right thyroid lobectomy
7	MH	59yo / Female	Massive goiter	Right thyroid lobectomy
8	SR	30yo / Male	Submandibular mass	Surgery deferred following CT scan demonstrating tumor extension into floor of mouth
9	LG	22yo / Female	Recurrent maxillary cyst	Surgery deferred due to need of maxillary surgery
10	ER	34yo / Female	Parotid mass	Right parotidectomy
11	PZ	66yo / Female	Massive goiter	Right thyroid lobectomy / Extended isthmusectomy
12	JD	9yo / Female	Tonsillar hypertrophy	Non-surgical follow up
13	DS	33yo / Female	Right submandibular mass	Right submandibulectomy

14	Unknown	28yo / Male	Massive lymphadenopathy	Non-surgical follow up
15	DS	13yo / Female	Left foot mass	Referred to ortho
16	VF	13yo / Male	Right tibial mass	Referred to ortho
17	GS	38yo / Female	Leg rash	Medical treatment

Endocrine / Head and Neck Surgery Case Log

Patient #:	Name:	Demographics:	Diagnosis:	Procedure:	Outcome:
1	PS	51yo / Female	Massive goiter	Right Thyroid lobectomy / Isthmusectomy	Excellent
2	AO	49yo / Female	Massive goiter	Right Thyroid lobectomy / Isthmusectomy	Excellent
3	PL	32yo / Female	Massive goiter	Right thyroid lobectomy / Subtotal left thyroid lobectomy	Excellent
4	CG	23yo / Female	Massive goiter	Right thyroid lobectomy	Excellent
5	MH	59yo / Female	Massive goiter	Right thyroid lobectomy	Excellent
6	PZ	66yo / Female	Massive goiter	Right thyroid lobectomy / Extended isthmusectomy	Post op neck swelling / re explored (no significant hematoma / edema)
7	DS	33yo / Female	Right Submandibular Mass	Right Submandibulectomy	Excellent
8	ER	34yo / Female	Parotid mass	Right parotidectomy	Excellent

Endocrine / Head and Neck Surgery Patient Care Histories

Patient #: 1		Name: PS		Demographics: 51yo / Female	
HPI: 5 yr history of goiter, fullness in her head and shortness of breath when she lies down.					
PMH/PSH: • Decreased hearing • 12 children • C-section		SH: • Not working • Sings in church	FH: • Negative	Meds: • HCTZ • propadrol	Allergies: • NKA
PE: • BP 256/146 • 8 x 12 cm goiter R > L • Venous distension in neck • Lungs clear • No adenopathy			Labs: • TSH 0.16 uiU/ml (0.32-5.0) • T4 Total 8.13 mg/dl (5-12) • T3 Total 99 ng/ml (80-178) Thyroid Ultrasound: • Massive goiter • Bilateral nodules		
Procedure: Right thyroid lobectomy / extended isthmusectomy					

Preop AP View

Preop Lateral View



Day 1 Postop AP View

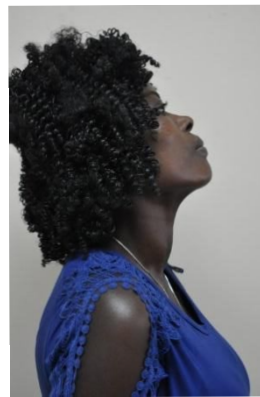


Day 1 Postop Lateral View

Post-operative photographs obtained 1-2 days after surgery are not indicative of the appearance of the mature healed incision that is nearly invisible. In addition, liberal use of surgical glue makes the incisions appear larger than actual size.

Patient #: 2		Name: DN		Demographics: 32yo / Female	
HPI: Bulging eyes, palpitations for 4 years. Treated with PTU, 100 mcg/day, started 4 years ago. Feels better on PTU.					
PMH/PSH: • Negative	SH: • Negative	FH: • Negative	Meds: • PTH	Allergies: • NKA	
PE: • HR 110 • Bilateral exophthalmos • Increased reflexes • Diffusely enlarged thyroid • No bruits			Labs: (9/21/2018) • TSH 0.01 (0.32 – 5.7) • T4 Total 23.44 (5 - 12) • T3 Total 555 (80 – 178) Thyroid Ultrasound: • R Thyroid lobe 6.5x3.07x1.94 cm • L Thyroid lobe 6.20x2.36x1.66 cm • C/w Von Basedow's disease		
Impression: Poorly controlled Graves' disease. Unacceptable operative risk due to high probability of perioperative thyroid storm. Plan: • Increase PTU • Defer surgery					

Patient with Graves' disease complicated by Severe Thyrotoxicosis and Mild Exophthalmos



Patient #: 3		Name: AO		Demographics: 49yo / Female	
HPI: 4 year history of shortness of breath, dysphasia, and fascial fullness.					
PMH/PSH: • Negative	SH: • Negative	FH: • Negative	Meds: • Unknown • Not compliant	Allergies: • Unknown	
PE: • 14x9 cm Right Thyroid lobe			Labs: • TSH 0.15 • T4 Total 12.4 (5-12) • T3 Total 38.1 (80-178) Thyroid Ultrasound: • Unavailable		
Procedure: • Right thyroid lobectomy / extended isthmusectomy • Left thyroid lobe entirely substernal and elected not to resect					
Postop: Did well with resolution of symptoms					

Preop AP View



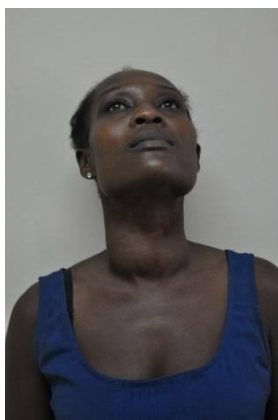
Preop Lateral View



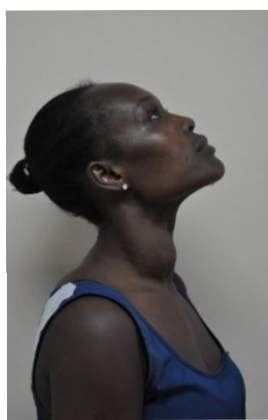
Operative Position

Patient #: 4		Name: PL		Demographics: 32yo / Female	
HPI: 9 year history of goiter. No dyspnea or dysphagia.					
PMH/PSH: • Negative	SH: • Negative	FH: • Negative	Meds: • None	Allergies: • NKA	
PE: • Large right goiter 8x5 cm • Left goiter 5x4 cm • Lungs - clear • Regular rate and rhythm • No murmurs			Labs: • Unavailable Thyroid Ultrasound: • Unavailable		
Procedure: Right thyroid lobectomy / extended isthmusectomy					

Preop AP View



Preop Lateral View



Patient #: 5		Name: CG		Demographics: 24yo / Female	
HPI: 5 year history difficulty swallowing. No dyspnea. Large thyroid mass.					
PMH/PSH: • Negative	SH: • Negative	FH: • Negative	Meds: • None	Allergies: • NKA	
PE: • 9x8 cm right sided goiter			Labs: • Unavailable Thyroid Ultrasound: • Unavailable		
Procedure: Right thyroid lobectomy / isthmusectomy					



Preop AP View



Preop Lateral View



Operative Positioning

Patient #: 6		Name: MH		Demographics: 59yo / Male	
HPI: 5 year history of goiter					
PMH/PSH: • Type II DM • Hydrocele repair		SH: • Food business • Loves to sing	FH: • Unknown	Meds: • Metformin • Glyburide	Allergies: • NKA
PE: • Right thyroid lobe 8x9 cm • Left lobe normal			Labs: • Unavailable Thyroid Ultrasound: • Unavailable		
Procedure: Right thyroid lobectomy / isthmusectomy					



Preop AP View



Preop Lateral View



Postop Day 1 AP View



Postop Day 1 Lateral View

Post-operative photographs obtained 1-2 days after surgery are not indicative of the appearance of the mature healed incision that is nearly invisible. In addition, liberal use of surgical glue makes the incisions appear larger than actual size.

Patient #: 7	Name: SR		Demographics: 30yo / Female	
HPI: 20 year history right submandibular mass				
PMH/PSH: • Negative	SH: • Negative	FH: • Unavailable	Meds: • None	Allergies: • NKA
PE: • 5 cm right submandibular mass		Labs: • Unavailable Ultrasound: • Hypochoic cystic mass Impression: 1. Congenital cyst 2. Salivary gland tumor CT Scan: • Extension of tumor into floor of mouth		
Procedure: Surgery deferred				

Patient #: 8	Name: LG		Demographics: 22yo / Female	
HPI: Cyst in maxilla with recurrent episodes of bloody discharge associated with left sided face swelling. Maxillary surgery to open cystic space recommended.				
PMH/PSH: • Negative	SH: • Unavailable	FH: • Unavailable	Meds: • Unavailable	Allergies: • Unavailable
PE: • Unremarkable		Labs: • Unavailable Thyroid Ultrasound: • Unavailable		
Plan: Agree with diagnosis and plan for maxillary surgery.				

Patient #: 9	Name: ER		Demographics: 34yo / Female	
HPI: Right parotid mass				
PMH/PSH: • Negative	SH: • Unavailable	FH: • Unavailable	Meds: • None	Allergies: • NKA
PE: • 4cm right parotid mass Imaging		Labs: • Unavailable • Unavailable		
Procedure: Right superficial parotidectomy				



Drs. Udelsman and Young following Thyroid Surgery

Patient #: 10		Name: PZ		Demographics: 66yo / Female	
HPI: Goiter since age 18 with compressive symptoms					
PMH/PSH: • Negative	SH: • Unavailable	FH: • Unavailable	Meds: • Unavailable	Allergies: • Unavailable	
PMH: • 4 abdominal surgeries for duodenal ulcer • Asthmatic PE: Massive goiter			Labs: • TSH 0.4 (0.03-5.0 uU/l/M) • T4 Total 5.1 • T3 Total 0.9 Thyroid Ultrasound: • Unavailable		
Procedure: 1. Right thyroid lobectomy / extended isthmusectomy 2. Take back for neck swelling • No bleeding found, edema only					



Preop AP View



Preop Lateral View



Day 2 Postop AP



Day 2 Postop Lateral View

Post-operative photographs obtained 1-2 days after surgery are not indicative of the appearance of the mature healed incision that is nearly invisible. In addition, liberal use of surgical glue makes the incisions appear larger than actual size.



Post Intubation AP View



Post Resection with Drain



Pathologic Specimen

Patient #: 11		Name: JD		Demographics: 9yo / Female	
HPI: Tonsillar enlargement and difficulty breathing.					
PMH/PSH: • Negative	SH: • Unavailable	FH: • Unavailable	Meds: • None •	Allergies: • NKA	
PE: • Large tonsils			Labs: • Unavailable Thyroid Ultrasound: • Unavailable		

Plan:
Defer surgery



Post-operative Thyroidectomy Patients on Day 1 with Drs. Harris and Udelsman and Rafael Alonso, APRN



Post-operative Thyroidectomy Patient and ICU Nurses Arlette Choe, RN and Arturo Pena, RN



Dr. George Mueller, Lead General Surgeon

A Talented and Fearless Surgeon



Farah Obias-Lofaso, RN with Dr. Mueller's postoperative Hernia Patients and their Donated Gifts



Dr. Jorge Brieva-Montalvo Sr. and his Team



Chest Wall Tumor Resected by Dr. Jorge Brieva-Montalvo Sr.

Outcomes

The mission was an unqualified success. Forty-nine operations (35 major and 14 minor) were performed in 2 ½ days. Of these there were 6 thyroidectomies for massive goiters, 1 parotidectomy and 1 submandibulectomy. The remainder were in general surgery and our endocrine/head and neck team assisted the general surgeons who performed herniorrhaphies for massive inguinal, inguinal-scrotal or umbilical hernias in adults and children, massive hydrocele repairs, 1 chest wall resection for a chest wall tumor, a variety of lipoma resections and assorted procedures. All were successful. The only “complication” was in the 6th thyroidectomy patient who had neck swelling the afternoon following surgery. Although her airway was intact and we would normally observe such a patient, the most prudent management was to return to the operating room to rule out a neck hematoma that can be life-threatening, especially since we were planning to depart the following morning. At the time of take-back surgery there was no evidence of bleeding as there was only edema in this nutritionally depleted patient. She did well and in retrospect I am certain that the decision was sound.

Problems Encountered

- 1) **Equipment Issue 1:** I had obtained a grant from Ethicon and received approximately \$10,000. of surgical thermal energy devices to help mitigate against bleeding during or following thyroid surgery. The devices were transported, however, when we were setting up the operating rooms, we noted that they were sent with the wrong noncompatible adaptors rendering the devices useless. We pushed on and utilized conventional cut and tie and cauterization techniques and the outcomes were excellent.

Prevention: Meticulous preparation, checking and rechecking are critical.

- 2) **Equipment Issue 2:** The light sources in the ORs are not sufficient for optimal thyroid surgery.

Prevention: We must transport portable headlights.

- 3) **Equipment Issue 3:** In order to expedite surgical care, we opened a third operating room that has been traditionally used for local cases. Because of the need for general anesthesia we employed the preexisting but rarely used anesthesia equipment. During induction of general anesthesia, after the patient had been pharmacologically paralyzed, the adaptor to the oxygen tank shot across the room and the oxygen flow was emergently terminated. The anesthesiologist, Dr. Chantal Policard Jean-Pierre and her team, intubated and ventilated the patient on room air. We then moved a pediatric patient who had not yet been induced along with the operating table from another OR into the recovery room and moved the intubated patient along with the OR table into

the now vacated OR. We then performed the surgery. Both patients did well. Our team demonstrated poise under pressure and deserve due recognition as no harm ensued.

Prevention: Preemptive quality checks on all preexisting equipment.

Mission Cost Estimates

I do not have sufficient information to prepare a formal cost-analysis of this mission. Nonetheless, I prepared the following estimates and Calvin Babcock verified that they are reasonable.

Cash for airline tickets, Double Harvest fees, security and food:	\$22,000.
Donated equipment and supplies from Baptist Hospital:	\$20,000.
Donated time for employees from Baptist Health South Florida:	\$10,000.
Donated time of Baptist Health Professionals (not compensated)	\$10,000.
Grant from Ethicon:	<u>\$10,000.</u>
Total	\$72,000.

In addition to the contributions of every member of our team, their opportunity costs and the risks they accepted to travel to a country with a travel advisory rating of 4 (the highest possible risk-level issued by the US State Department) are not calculable. To each we offer our sincere thanks.



Medical records at Double Harvest Hospital

Haiti PACU Supplies for Future Missions

Prepared by Farah Obias-Lofaso, RN

Abdominal binder	Support – Adult Scrotal
Alcohol swabs	Syringes – 3cc,10cc tuberculines
Band aids	Tape
Bath wipes	Tash bags / Line bags
Batteries AA	Underwear
BP cups – Pediatric / Adult	Urinal (5)
Caps	Used shoes
Cavi wipes	Wipes
Chalks blue pad	Yankuer
Clothes	Ziplocks
Deodorant – Soaps	
Diapers – Baby	
EKG leads	
Face masks	
Flushes – 100cc	
Gauze	
Gloves	
Green emesis bags	
Hand sanitizer	
Humidifier O2	
Ice packs	
IV Cat – 18,20,22	
LR fluids	
Nasal cannulas	
Needles 22 gauge	
Nellcor sensor	
Oval and Nasal airways	
Paper towel	
Papers	
Pedi pads	
Pediatric scrotal	
Pens	
Pregnancy strips	
Primary tubing	
Red bag	
Red pans (5)	
Slippers brand new	
Straight catheter	
Stuffed toys	

Sucron setup

Team Members



Howard Zinhagel, RN



Tony Machin



Hughes Desruisseau and Robert Udelsman



Some Members of our Dedicated Team



Team Members on the Bus



Reflecting Return, Noah Mostkoff, 2019

Acknowledgements

Photographers:

Although I took the majority of the photographs (not titled) included in this report, Noah Hershel Mostkoff, PA-C and Farah Obias-Lofaso, RN also contributed and are acknowledged with photographic titles. The quality of their professional artistic work is remarkable.



Robert Udelsman and Nikki Holbrook



Noah Mostkoff



Farah Obias-Lofaso

The front cover photograph “Haitian Boy with Tire, was taken from the open window of our school bus while driving through Port-au-Prince. “Healing Hands” was taken in the operating room and “Reflecting Return” was taken on the roof balcony at Double Harvest Hospital. These are the work of Noah Mostkoff.

The photograph on the back cover entitled “Mangos of Hope” is by Farah Obias-Lofaso, 2019. It was taken on the second floor common room at Double Harvest.

Megan Hart is thanked for assisting with the preparation of this report and Michael J. Zinner, MD, Geoff Young, MD, and Calvin Babcock are thanked for his review of the text.

Submitted June 3, 2019.

