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A Most Unusual Patient at the Massachusetts General Hospital

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Abstract

This year marks 200 years of patient care at the Massachusetts General Hospital (MGH). In celebration of this milestone, a unique Grand Rounds case is presented. A 450-year-old rotund man admitted 60 times presents with a classic triad of periumbilical pain, bilateral plantar burns, and a frozen scalp. Although this triad may at first strike a cord of familiarity among seasoned clinicians, the disease mechanism is truly noteworthy, being clarified only after a detailed occupational history. Ergo, the lessons hark back to the days of yesteryear, when the history and physical served as the cornerstone of Yuletide clinical diagnosis. A discussion of epidemiology and prognosis accompanies a detailed examination of the pathophysiology. Although some consider this patient uncouth, as you will see, he is quite a medical sleuth. The long-standing relationship between this patient and the MGH prompted his family to write a letter of appreciation, which will remind the reader of the meaning that our care brings to patients and their families. Harvey Cushing, who completed his internship at the MGH in 1895, professed “A physician is obligated to consider more than a diseased organ, more even than the whole man—he must view the man in his world.” We hope this unusual Grand Rounds case intrigues you as it reminds you of Cushing’s lesson and wishes you a joyous holiday season.

In this holiday season of the bicentennial celebration of the Massachusetts General Hospital (MGH), we offer a humorous, semi-fictional Grand Rounds presentation based on the actual chart of the patient described.

A 450-year-old man with periumbilical pain, scalded feet, and a frozen scalp

This 450 year-old man, who has been well known to most physicians since their childhood, has been admitted to MGH every December for the past 60 years. The patient, who has signed a privacy clause, is a seasonal free-lancer who delivers toys to children. During his annual home deliveries, he adheres to conventional chimney-entry methodologies, as described in an oft-cited review published in 1258 to great fanfare among both academics and practitioners within the toy-delivery community.¹

The patient was in his usual state of jolly health until 2 days prior to admission, at which time he was performing a “dry run” in his practice chimney. At the urging of his

innumerable diminutive assistants, known for their pointy green shoes, he lit a Yule log in the fireplace to authenticate the drill. Reindeering (local dialect for rendering) the log aglow befuddled the patient. Due to a resulting loss of concentration and a recent increase in abdominal girth, attributed to activities of mirth, he became impacted at the outlet, unable to achieve the rapid landing and egress necessary for an uneventful chimney approach. This rigorously studied approach is described in evidence-based guidelines published by the consensus panel EATERY (Elves Against Treacherous Entries Regardless of Yule).² According to the intake nurse:

Until now, being plump
never made him a grump.
However, considering his plight,
the patient began to think in a new light.
When asked about his frozen skull,
the question was met with a lull.
Regarding his scalded feet,
he said he'd discuss them if we gave him a treat.

The patient's past medical history is remarkable for reindeer-horn calculi in 1956, aversion to the 12th letter of the alphabet—no "L" (Noel) syndrome, reindeer-scratch disease in 1967, a patent foramen Ho-vale, pseudomyxoma peritonei (jelly belly), and clausication (pannicular pain when overeating) since 1978.

Medications on admission included deerlantanin, Donnertal, and Ro-Ho-Ho-bitussin. The patient denies alcohol use, but indulges freely in "Christmas spirits," such that most evenings he's pretty much Donnered and Blitzened. Many will recognize this gentleman from their local mall, where children enjoy sitting on his lap. His family history is all but a mystery. Review of systems reveals that he has not voided this Yuletide season, and he has been Ho-Ho-Hoping all that eggnog was going somewhere. No symptoms to suggest rein-nodes phenomenon.

On examination by the admitting HO! the temperature was 72 and sunny. The fundi were remarkable for AV St. Nicking and cotton candy exudates. There was no cervical elfadenopathy. Lung exam revealed Ho-to-He changes and musical rhonchi in all his bronchi. Cardiac sounds were joyful with a hollysystolic murmur radiating to the North Pole. Gallops were heard overhead. Auscultation of his belly, which was like a bowl full of jelly, revealed jingle bells tinkling and yuletide rushes with candy canes tap dancing to the rhythm. There was *No-e/bow* pathology, but bilateral mistletoes. Mental status was snow flakey.

An electrocardiogram revealed a Bi-Jiminy rhythm with marked north-axis deviation, signs of early re-pole-arization, and a large left bundle filled with toys. Abdominal films showed no free eggnog, but the previously noted 3 French hens have been replaced by 4 calling birds—clinical correlation suggested. A chest radiograph showed a calcified plaque of good cheer and a candy cane aortic silhouette.

The patient's admitting orders are shown in Figure 1.

On the second hospital day, the patient's heart rate was dashing and prancing. Repeat electrocardiogram revealed elf-on-tree phenomenon, for which he was started on intravenous candy-caine and taken to the operating room for a cardiac transplant. The Easter Bunny was considered as a donor, but was rejected because of the arrhythmia of paroxysmal hippity hop. Mrs Claus offered but was found to have a Bundle of Hers instead of a Bundle of His. The transplant was aborted, but the wound healed with good intentions.

On the fifth hospital day, the patient claimed to see visions of sugar plums dancing in his head and elves in the hallway, thought related to eggnog withdrawal. Neurologic exam on admission was WNL (We Never Looked), but now revealed an "Oh! Oh! Oh!" reversion of "Ho! Ho! Ho!" compatible with phonemic paraphasia. The patient also had a jingle Bell's palsy and mistleptosis, a constellation consistent with Sleigh-Dragger syndrome. Neurosurgery arrived just in the St Nick of time, recommending an exploratory brrrr-hole, but the idea left the patient cold. They were afraid that a formal craniotomy would raise quite a flap.

The patient presents with a classic triad of periumbilical pain, bilateral plantar burns, and a frozen scalp, frequently seen among obese virtuosos of firewalking who practice their trade within confined spaces in cold environs. However, there is an emerging literature on another mechanism related to the toy delivery process. Distinguished thought leaders actively investigating the disease mechanisms have termed the pathophysiology "chimney outlet obstruction," depicted in Figure 2. The seminal descriptions are contained within the scholarly work of Comet and Cupid.³ As an editorial by Frosty the Snowman eloquently described, this literature is limited by selection bias because the study populations have been restricted to Altruistic Artisans of the Airways, known among lay persons as AAAs. Although follow-up has been universally poor among these footloose friars, the prognosis appears favorable. Case series have suggested a preventive role for internal fixation of the chimney lumen.

On the final hospital day, December 24, the patient created quite a clamor with persistent demands for discharge. Unable to resist his jolly temperament and charming appeals "I hear reindeer calling me! Children are waiting!" his physician pronounced him fit to fly and he sleighed off into the night.

DISCUSSION

The tradition of admitting "Santa Claus" to the MGH surgical service every December began in the early 1950s. At that time, a surgical and a medical resident were responsible for all Emergency Room (ER) patients. Late at night, as the patient load dwindled, a surgical resident decided to use the time productively for comic relief amidst all the hard work. Because it was December, he decided to admit a fictitious, but jovial and eternally endearing patient—Santa Claus! Since then, Santa has been admitted through the ER annually. In that era, patients were divided on the basis of gender, so the "male" surgical intern was responsible for constructing an imaginative clinical presentation for Santa, who generally leaves the hospital against medical advice at midnight on December 24 because he has "things to do," after declaring "Ho! Ho! Ho! It's time to go!" Santa's loving wife has also

been admitted several times. At weekly Surgical Grand Rounds, it had been a longstanding custom for the patient being discussed to be present. In keeping with this practice, as the subject of the Christmas Grand Rounds, Santa arrives in his hospital bed (Fig. 3).

Admitting Santa became a humorous tradition of great importance. ER nurses are responsible for fashioning Santa's suit, which is later customized by floor nurses. Santa has been fabricated with materials ranging from simple paper-stuffed cloth to inflatable dolls. Nurses use food coloring to make his intravenous fluids green and red. Those new to the ER quickly understood that Santa was to be treated like any other patient. According to the orders, ER nurses page various services with consult questions, always interested in how each would respond to such a recognizable patient. For example,

Consult to Plastics: Patient wants to look like the Easter Bunny.

Consult to Psych: Patient wants to look like the Easter Bunny.

After he was stabilized, transport moved Santa to his room on the wards with his chart and registration card, on which his medical record number is embossed. Senior nurses introduce new nurses to the humorous endeavor: "Please do a clinical assessment on the elderly gentleman in the end room. He's admitted because of trauma sustained while sleighing." One charge nurse recalls requesting a bed on a unit for which she had 19 patients listed. The unit secretary responded, "Sorry, we're full with 20 patients." Later, upon reviewing the patient list, she realized that the 20th patient was Santa!

Over the years, thousands of humorous notes have been written in Santa's thick medical chart by participating services, ranging from internal medicine to social work, legal counsel, genetics, and pediatrics! Figures 4 and 5 illustrate the participation of pharmacy and physical therapy. Hospital staff, across religious and cultural backgrounds, have been welcomed to the surgeons' Santa tradition. Skillfully mixing humor with clinical findings has created friendly competition that fostered bonding among staff members. Even nonclinical staff became involved. In 1979, Santa developed a Saturday Night Fever of gastrointestinal etiology. The culture results are seen in Figure 6. The impression of the bacteriology technician:

Santa, poor dear, has severe diarrhea
caused by some unknown bacterreha.
We're doing our best in this laboratory
to get Santa out of his lavatory.

Close relationships among house staff helped solidify the Santa tradition. Residents from various departments lived together at the hospital during the first 2 decades of the Santa endeavor. The medical consult resident rounded with the surgical house staff on all their patients, including Santa, for whom a thoughtful consult note was expected. In addition to reading Santa's imaging studies at Grand Rounds, radiologists evaluated his films when he was brought to the viewing room by surgical house staff. Such enjoyable interactions strengthened the relationship between residents from different departments. A radiologist making rather merry in 1960:

By fluoro and film and every device,

the lungs were congested with everything nice.
 Tinsel and ribbons and candy canes galore
 bespoke of the journey that lay afore.
 The heart was generous as noted last year,
 but full size not expected until the 25th near.
 An added exam was requested this year—a roentgen
 of that famous white beard.
 Low kV technique clearly reveals the bushy
 Yule strands filling the field.
 For an impression was gained this year—as in many,
 his real diagnosis is good will aplenty.
 The films are elusive, but the meaning is clear.
 The Yuletide message of kindness and cheer.

Collegial relationships are evident in the humorous consult requests, such as this to urology
 “You ought to glans at this patient’s problem if it might make a deferens; just kidneying you,
 teste-ing you, as it were.” Jestng between surgery and dermatology provides an illustrative
 example: “Sorry to call you in from home. Does the patient need Valisone *cream* or *lotion*?
 Sorry to call on Thursday with the weekend so close, but please rule out ringworm.” The
 reply:

“Asked to see this jolly man for possible ringworm. Patient denies cutaneous
 symptoms, but admits to “sound of bells ringing in my ears.” Perhaps the surgical
 house staff has again confused ringworm and tinnitus. Although the weekend is
soooo close, the consultation was not a total loss as the patient does complain about
 his hair suddenly turning white many years ago. Exam remarkable for chimney
 dermatitis with post-hilarity pigmentary changes (you can call it “some kind of
 eczema” for short). Impression: #1: Tinnitus, #2 Canities Subita.”

In the same way that the Santa experience familiarized doctors with pseudomyxoma
 peritonei, this was a unique opportunity to learn about canities subita.⁴ Such lighthearted
 exchanges reflect strong relationships among services, which Santa has helped to enhance.
 Infectious disease often receives playfully sarcastic consults: “Evaluate for Claustri-dial
 infection. Is infectious glee dangerous? Please restrict your note to 4 pages so someone will
 read it.” In response, Frank Pus, MD, is urgently dispatched to engage in the playful banter
 with clever retorts.

Anticipation of the December admission has always been a source of great enthusiasm
 among residents and nurses. The nurses consider Santa’s admission to their unit a
 pleasurable, but serious responsibility and, by many, a badge of honor. Rivalry between
 nursing units to have Santa as a patient improved morale during the holiday season and
 beyond. On many occasions, Santa’s presence inspired spontaneous holiday gatherings on
 his ward, with invitations going around the hospital. Family members were delighted to
 learn of the tradition, which humanized the hospital staff in the midst of sickness. Children,
 however, were not permitted to enter Santa’s room to prevent them from worrying about
 their holiday gifts. It might also shock them to see immortal Santa intubated, in halo

traction, or in the intensive care unit (Fig. 7)! Speaking of families, a letter was received from Santa's family—see “Mary Christmas Letter,” Figure 8.

Santa has also served as a valuable training tool. Before the 1990s, the only mannequin simulator used widely for clinical training was Resusci-Anne.^{5,6} However, Santa was used as a simulator dating back to the 1970s. Junior nurses were called to Santa's bedside to interpret and respond to sample pulmonary-artery catheter readings. He was also used to practice sterile technique for Foley and central venous catheter insertion. Interns have been called to Santa's room for mock rapid response events, during which time they received feedback. One former resident recalled an overhead page “Code Blue ... Santa Claus,” which provided an opportunity to practice advanced cardiac life support algorithms.

Santa also played an instrumental role in the medical sleuthing that solved the mystery of an epidemic of *Salmonella cubana* at the MGH. In 1965–1966, 22 *cubana* serotypes were cultured, accounting for a disproportionately large percentage of *Salmonella* isolates. As part of a complete work-up, the house staff sent Santa's urine and blood for culture. Seeing the patient's name, the chuckling bacteriology technician cultured the urine because she thought fondly of the Santa endeavor. To her dismay, on Christmas Day, Santa's urine grew *Salmonella cubana*! The house staff had colored Santa's blood sample with carmine red, which was discarded by a less Santa-enthused technician. However, the urine was stirred with the same swab that was used to prepare the red blood sample. The Santa specimen familiarized the investigators with carmine red, ultimately helping them identify it as the source of the *Salmonella*.⁷ Patients had been infected because carmine red was used as a fecal dye marker to measure gastrointestinal transit time.⁸ Carmine red, which has been used as a fabric dye in Mexico for a thousand years, is made from female cochineal scale insects and larva. An investigation concluded that a batch of insects containing the *Salmonella* had contaminated machinery used in dye production.⁹

The Santa chart, which spans 7 decades, shows the humorous side of many accomplished physicians. In 1963, Andrew Warshaw, the former MGH Department of Surgery Chairman, ordered that Santa be evaluated as a donor of good cheer. One December, Santa had been admitted after being impaled by Rudolph, who was stricken with Mad Reindeer Disease. For the Grand Rounds of antlered Santa, MGH surgeon John Constable, former director of the World Wildlife Fund–United States, borrowed actual reindeer antlers from the Harvard Museum of Natural History. The resulting radiographs may be the only images ever taken of real reindeer antlers lodged in Santa's abdomen! Kenneth Shine, who became President of the Institute of Medicine, read Santa's electrocardiogram: merry rhythm and atrial signs consistent with chimney soot ingestion. Thomas Vander Salm, Chief Cardiac Surgeon at North Shore Medical Center, noted a positive Ho-Ho-Homan's sign in 1972, for which he started Santa on happyrin. In 1963, a massive external shunt of good will was noted during Santa's cardiac catheterization by Charles Sanders, who became Chairman of the New York Academy of Sciences and the Commonwealth Fund Board of Directors.

The MGH, celebrating its 200th year, continues the Santa tradition, which has meant so much to so many. Academic hospitals are committed to their missions of patient care, education, and the advancement of medical science. As such, they attract committed

individuals passionate about their work. We hope the story of the Santa Claus patient has entertained you, while showing that they also greatly value the camaraderie that can be created from a little merriment. Ho! Ho! Ho! Merry Christmas, Happy Holidays, and to all a good night!

Acknowledgments

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Orders

Activity: OOB to sleigh TID
Back of sleigh at 30°
Sled rest, No flying until cleared for takeoff

Condition: Critical, but jolly

Medications: Egg to noggin' prn insomnia
Decadron the Halls with boughs of holly q6 hours

Labs: Deerlantin level

Nursing: HO₂, 2L nasal cannula
Check his blood sugar twice
Find out if he's being naughty or nice
Holy foley! Monitor the urine output!

Misc: Duke the Claus with Bells of Holly
Call "Ho!-Ho!-Ho!" for visions of sugar plums
Patient insists on room with a chimney
Allow the patient to have a silent night

Consult social work re early repolarization of reindeer

FIGURE 1.
Admitting orders.

FIGURE 2.

Chimney outlet obstruction causing the triad of crushing periumbilical pain (clausalgia), a frozen scalp, and scalded feet.

FIGURE 3.
An intern presents Santa's fascinating case to a roomful of attentive surgeons in the Bigelow Amphitheater.

Twas a night before Christmas and all through the land,
the children awaited, Santa was in demand.
But in all those brownstones what no children knew,
was that Santa and his reindeer flew smack into the Pru.*

The ambulance came, took him straight to the mecca,
drove up to the EW and said, "Oh, What a wrecka."
This guy here's in shock. Oh, what shall we do?
Type and cross-match, draw CBC, too.

Then the doctor cried out, "Someone, check his ID."
But all they found were pill bottles and JD.
Valium, lithium, Percocet, too.
Claus a DWI? I think this guy's through.

His eyes look glazed, his vision blurry.
He's crumpin' real fast, get a tox screen in a hurry!
His spleen must be ruptured, and boy do I dread,
that Christmas red fluid rushing from his head.

A pharmacy consult we need? Yes, I think.
To combat the effects of the drug and the drink.
Oh Harry, Oh Glen, Oh Doug, what can we do?
but give some Narcan before he turns blue.

We're here to help and give needed support,
so Santa can give toys out in the Hub. Oh, what a port!
He's really lucky that docs here are great.
I hope he gets out, so he won't be late.

From us in the pharmacy, we offer good cheer.
At no patient does the pharmacy jeer.

FIGURE 4.

The pharmacy gives Santa the attention he deserves! *The Prudential Center in Boston.

You better cough out, you better breath deep,
you better not wheeze, I'm telling you why ...
CPT is coming to treat.

She's vibrating you, suctioning too, finding a specimen
for a doctor or two ... CPT is coming to treat.

She sees you when you're sleeping, she knows
secretions well, she'll have you breathing easy,
so cough and you'll be well.

You better cough out, you better breath deep,
you better not wheeze, I'm telling you why ...
CPT is coming to treat.

She'll clear your aspiration, make x-rays look so clear,
assist with mobility so you can fly with your reindeer.

Oh, you better cough out, you better breath deep,
you better not wheeze, I'm telling you why ...
CPT is coming to treat.

FIGURE 5.

Chest physical therapy (CPT) to the tune of Santa Claus is Coming to Town.

FIGURE 6.
Culture growing the menacing *Yuletidia multijocularis*, for which high-dose clausicillin was recommended.

FIGURE 7.
Physicians carefully review the medical record of a critically ill Santa, who is sedated and has a chest tube.

CLAUS FAMILY INC.,
FOUNDATION FOR CHILDREN'S HAPPINESS
1 FROSTY RD., WINTER WONDERLAND, NORTH POLE

Dear Massachusetts General Hospital,

I'm writing to share with you our family's perspective of my great uncle's admissions to MGH every December for the last 60 years. Although he appreciates the care he receives, the doctors noel (North Poleish for "know well") he is often hiding a medical tiding. For example, doctors have suggested "He drinks more eggnog than he is telling us."

Santa claims to be impervious to the hazards of his profession, but has had numerous accidents. Doctors have speculated that aviating under the influence of eggnog in disregard of FAA sleigh pilot regulations (8 hours from bottle to throttle) might have played a role. The one that'll go down in history is a test flight of his largest sleigh, the so-called "Spruce Moose."* Santa executed hammerhead turns and chandelles with felicity, but he crashed after a flat spin coming out of a snap role. Thanks to MGH, he fully regained activities of daily toy delivery.

Infections have wreaked havoc on Santa and his comrades. His first infection with MRSA (Many Reindeer Standing Around) in 1981 frightened us, as did Humbug hemorrhagic fever, for which er-wreath-romycin and Prancef were prescribed. We had a scare when trusty Rudolf came down with the dreaded Mad Reindeer Disease, impaling Santa with his antlers. The mortified doctor said:

Rudolph has gored St. Nick, run through and through.
Poor Santa can't breathe, he's bleeding and blue.

Despite no such problems in his tannenbaum (our family tree), Santa has become riddled with psychiatric diagnoses. One December 25th, after a long night's work, he lost his bearings, ended up at the South Pole, and was diagnosed as bipolar. His standard procedure of "making a list and checking it twice" landed him in group therapy for obsessive compulsive disorder. He was put on Holly Doll for claustrophobia when he divulged to his psychiatrist a fear of tight chimneys. Worst of all was his diagnosis of de-personalization complex when he candydly admitted "Sometimes I feel unreal."

Santa and our reindeer have always been taken care of with the most recent technology, including his first Christmas Tree (CT) scan in 1975. However, with the cost of medical care mounting because of these new tests, Santa burst into song "I'm dreaming of admission gratis, just like the ones I used to know." He was thrilled when his attending physician declared, "Alas, he's such a good con man that he's got me believing there is a Santa Claus after all. Free service for the old gent again."

He always looks forward to returning to MGH because he loves the doctors, nurses, and all the kind people who work there. As sure as chestnuts will be roasting on open fires,

And so I'm offering his simple message
that this year he will surely return too
although it's been said, many times, many ways

Mary Christmas

* Howard Hughes' Hercules flying boat (Spruce Goose) was retired after its maiden voyage in 1947.

This paper is made from 100% recycled material to minimize the impact on the ozone layer at the North Pole.

FIGURE 8.

Santa's family expresses their gratitude in a letter to the MGH.