A lousy reason for surgery cancellation

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Introduction
Cancellation of surgery can have significant financial impact on healthcare providers and their associated facilities as well as inconvenience families. Head lice infestation has not been shown to be associated with adverse surgical outcomes, but can often prompt case cancellation by surgical and anesthesia personnel. Although head lice are not known to be common vectors of human disease, secondary skin infections can result from excessive scratching and superficial skin excoriation related to pruritus.

Our clinical experience in the pediatric anesthesia environment has suggested that these cases tend to be infrequent with an unknown impact on patient care and Operating Room (OR) schedule.

We retrospectively reviewed the last three years of surgical case cancellation data related to head lice infestations to determine what factors might have lead to cancellation of cases, what treatment ensued and if and when surgery was rescheduled. Using these data, we attempt to develop guidelines to help the practitioner manage patients who present for surgery with active head lice infections.

Methods
This study was approved by the Institutional Review Board of Nationwide Children’s Hospital (Columbus, Ohio).

The surgical case cancellations over 3 years between January 2010 and December 2013 were examined to identify patients that were cancelled due to head lice infestations. We then examined the electronic medical records of these patients to determine information such as the time at which the infestation was discovered (pre-operatively vs. intra-operatively), evidence of secondary infections, cervical lymphadenopathy, or other findings associated with lice infestation. Treatments were equally split between Permethrin, Lindane lotion 1%, and Shampooing. The average delay before successfully undergoing the operation was 27.4 days (range: 1-115 days), which excludes the patient who was never rescheduled. The surgeon scheduled to operate noticed initially by the team responsible for electro-encephalogram (EEG) lead placement.

Results
Nine patients were identified who had their cases cancelled for active lice infestation (table 1). All identified patients were female with an average age of 12.4 years (range: 5-20 years).

Eight of the 9 patients (88.9%) were scheduled to undergo major spinal surgery with the majority to receive hardware implantation. The remaining patient was scheduled to undergo craniotomy for treatment of epilepsy.

One patient did not have their surgery eventually successfully completed as she was cancelled for 2 later surgical dates due to ongoing lice infestation. No other patient required a second cancellation due to ongoing infestation. There were no associated findings noted on the physical exam regarding secondary infections, cervical lymphadenopathy, or other findings associated with lice infestation. Treatments were equally split between Permethrin, Lindane lotion 1%, and Shampooing, and unknown with three each. Two patients reported having multiple treatments and two patients shaved their head prior to returning for their rescheduled date for surgery.

Four infestations were discovered intra-operatively after the induction of anesthesia, but prior to surgical incision. The other five cases were discovered pre-operatively, many of which were noticed initially by the team responsible for electro-encephalogram (EEG) lead placement.

The average delay before successfully undergoing the operation was 27.4 days (range: 1-115 days), which excludes the patient who was never rescheduled. The surgeon scheduled to operate on this patient retired around that same time period and it is unclear whether she sought operative care at another facility.

Discussion
Surgery cancellations from head lice infestation are relatively rare. In our study a total of 9 patients were cancelled over a 3 year period. Although there is no direct evidence to show that head lice infestation poses a risk to surgical outcomes, the possibility of underlying secondary bacterial infection at the skin excoriation site is often the concern in these patients. All the cases identified were for major surgery so it may be that other cases were performed despite the active infestation.

Following cancellation, a management plan should be devised which should include treatment, follow-up and rescheduling. Consultation with dermatology may be required in severe cases. Despite the limited number of patients, there is a significant financial impact of this problem. Up to 50% of parents miss work to come to surgery with their child and patients often drive long roundtrip distances to the hospital.

This is a retrospective review of a single institution in an area without endemic levels of head lice infestations. The limited cohort of only nine patients limits definitive conclusions regarding the impact of this problem. This study offers the first investigation into the impact of head lice infestations on operating room cancellations, which may prove to be a potential source of intervention to prevent cancellations and may be especially useful in locations with endemic levels of lice infestation.

References