Introduction
Polydactyly is one of the most common inherited congenital deformities. It occurs in 1.7 cases per 1000 births and comprises 45% of congenital abnormalities in the foot. There are numerous variations of polydactyly in which it can be classified into groups consisting of preaxial, central, and postaxial. Each surgical case of polydactyly has to be planned on an individual basis as the anatomy of the deformity is complex and variable. This case study highlights a rare instance of bilateral preaxial polydactyly of the hallux with rigid malleus deformity surgically treated in an adolescent patient.

Case Study
A 12 year old presented to clinic with his family complaining of a painful hallux bilaterally. The patient was born with a deformity to his big toes. Over a few years now his hallux have continued causing more pain, difficulty walking, and prevent him from pushing off the big toe normally on both feet. His father was concerned that this issue could prevent him from entering the military or pursuing other professional options. Clinical examination revealed an excessively large hallux bilaterally with duplication of nail plate with a central furrow (Figure 1).

Limitation of interphalangeal joint (IPJ) motion was noted with a fixed malleus contracture bilaterally. X-ray imaging showed duplication of the hallux bilaterally (Figure 2). The diagnosis of preaxial polydactyly with rigid hallux malleus was discussed with patient and family. Once the benefits and complications were discussed, the patient and his family have elected for surgery.

Procedural Methodology
The procedure of choice was to resect the accessory hallux, fuse the IPJ, and reconstruct the hallux soft tissues starting with the right side followed by the left once healed from the first procedure (Figure 2). The surgery was performed at Hancock Regional Medical Center in Greenville, IN by the authors.

The patient was placed in the supine position. Following IV sedation, a first ray may block was performed with 20cc of 2% lidocaine plain. An ankle tourniquet was applied. The foot was then scrubbed, prepped and draped in the usual aseptic manner. The right tower extremity was elevated for exsanguination and the tourniquet was inflated to 250mmHg. An ankle tourniquet was applied. Dissection was performed (Figure 3). Following IV sedation, a first ray may block was performed with 20cc of 2% lidocaine plain. An ankle tourniquet was applied. The foot was then scrubbed, prepped and draped in the usual aseptic manner. The right tower extremity was elevated for exsanguination and the tourniquet was inflated to 250mmHg. An ankle tourniquet was applied. Dissection was performed (Figure 3). The patient was discharged with instructions to remain partial bed rest for six weeks. At follow up showing bony fusion at the IPJ right hallux in rectus position after six weeks. After healing the procedure on the right foot, the patient wished to have the same procedure on the left foot. The same procedure was performed using a similar technique and same postoperative course. At final follow up, the patient was overall happy with the position of the big toe on both feet and glad he had the procedures performed (Figure 4).

Discussion
Although polydactyly is a relatively common congenital deformity, it is challenging to correct due to the variation in anatomic structures which makes each case unique and complicated. This case study highlights the importance of preoperative and perioperative planning to obtain the best outcome. The ideal surgical procedure should reflect the goal to restore normal cosmetic appearance and maintain overall function of the forefoot. In this case, the patient was very satisfied with the cosmetic and functional outcome of his procedures.