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## Colonoscopically Reduced Intussusception and Testicular Involvement in Henoch-Schonlein Purpura

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Henoch-Schonlein Purpura (HSP), predominantly a medical disease of young

children, can often present challenging surgical problems. Although the incidence of surgical complications is as low as 2-6% (1), they have a significant morbidity. In this report we present a rare combination of surgical complications encountered in a single patient and the successful use of colonoscopic air insufflation to reduce the intussusception.

### Case Report

A 10-year-old boy was otherwise well till a month ago. He presented with rashes over the lower limbs and abdominal pain of 1 month duration. The abdominal pain was colicky in nature but not associated with vomiting. He also complained of pain in the knee and ankle joints on both sides. His stools were blood stained and mucoid on 3 occasions 20 days before admission. Three days prior to admission he developed puffiness of the face, swelling of the lower limbs and a decreased urine output. At about the same time he complained of pain in the left testis and mild swelling was noticed. There was no history of bruisability or any other major illness. There was no history to suggest a bleeding disorder in the family.

He was afebrile, weighed 20 kg, had a pulse rate of 100/min and blood pressure of 150/110 mm of Hg. He had Grade II malnutrition, pallor and bilateral mild pedal edema. Purpuric rashes were present over the buttocks and back of the thighs on both sides, which did not blanch on pres-

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sure. Examination of the cardiovascular, central nervous, and respiratory system was normal. The abdomen was tender in all quadrants, but no mass or free fluid could be detected. The left testis was enlarged and tender and the epididymis was normal. The right testis was normal.

The knee and ankle joint on both sides were swollen, tender and movements were restricted. There was no muscle wasting. The laboratory investigations revealed a hemoglobin of 12.9 g/dl, total leukocyte count of 11,900, (N69, L30), platelet count of 3,69,000/cu mm, ESR of 25 mm in the 1st hour, BT of 2" 00", and CT of 10" 00". Peripheral smear showed normocytic normochromic red blood cells with adequate platelets and mild neutrophilia. Blood urea was 33 mg/dl, serum creatinine 0.58 mg/dl, serum calcium 8.5 mg/dl, and serum cholesterol 224 mg/dl. Examination of urine showed a pH of 6.5, albumin + + +, RBCs, 4-5/HPF. WBCs 20-25/HPF and granular casts-2-3/HPF.

On admission he was treated with parenteral antibiotics and antihypertensives. Parenteral steroids were started on the 3rd day after admission. On the 3rd day after admission he had developed an abdominal mass in right lower quadrant along with severe colicky pain and rectal bleeding. The clinical diagnosis of intussusception was confirmed at colonoscopy. The apex of the intussusception showed multiple areas of submucosal hemorrhages also seen in other areas of the mucosa. Using air insufflations, the intussusception was reduced until the ileocecal valve was visualized. Following reduction of intussusception, the abdominal pain and mass disappeared. There was no recurrence of the abdominal mass or rectal bleeding and the testicular swelling subsided spontaneously by the 7th day. Steroids were continued for 2 weeks

postoperatively when they were tapered off. The patient has been well since then.

## Discussion

Henoch-Schonlein or anaphylactoid purpura is an acute inflammatory process of unknown origin involving small blood vessels of the skin, joints, gut and kidney. CNS involvement, intramuscular hemorrhage, cardiac, eye or testicular involvement have also been reported(2).

In the prodromal phase of HSP 80-90% of patients present with gastrointestinal symptoms such as abdominal pain and gastrointestinal bleeding. Rarely, intussusception, obstruction, infarction or perforation of the bowel may occur(3).

Intussusception complicating Henoch-Schonlein purpura is a well recognized surgical condition. The nature of conservative methods of treatment include hydrostatic reduction and air insufflation. Colonoscopic visualization and reduction by air insufflation(4) is a well controlled and safe technique as evidenced in this case. Further, the diagnosis was confirmed and a cause other than submucosal hemorrhage was excluded.

The earliest available report of testicular involvement in Henoch-Schonlein purpura was in 1960 where five patients had testicular involvement among a total of 131 patients(5). The nature of testicular involvement may be as testicular hemorrhage or torsion, the basic cause being a vasculitis. The treatment of testicular involvement in Henoch-Schonlein purpura brings out the usual dilemma—whether or not surgical exploration should be carried out. The decision to explore or not can be made in many patients on the basis of history and physical findings(2), reserving more sophisticated methods as the Doppler stethoscope and radio isotope scrotal scans for

the equivocal case. The early use of corticosteroids (hydrocortisone 1-2 mg/kg/24h) will prevent intussusception and other complications.

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## Prenatal Diagnosis of Bochdalek's Type of Diaphragmatic Hernia

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Definitive diagnosis of fetal diaphragmatic hernia has become possible with the help of antenatal ultrasonography. This case illustrates the typical echo features of this anomaly which was detected in the

early third trimester and later confirmed at emergency neonatal surgery.

## Case Report

A 24-year-old second gravida was referred for ultrasound scanning because of over distended uterus compared to her period of amenorrhea. Her first pregnancy was normal and there was nothing relevant in the past history.

On scanning, the placental echo texture and thickness were normal. She had polyhydramnios surrounding an active fetus whose biometry showed a growth of 30 weeks. There were no features of cranio-spinal anomaly or gastrointestinal tract atresia.

Thoracic scanning at the level of the four chamber view of the heart showed antero lateral displacement of the cardiac shadow by the presence of a sonolucent area between it and the spine (*Figs. 1 & 2*). This was occupying the lower medial left thoracic cavity reducing the volume of the left lung. The appearance of the lung parenchyma was normal. The stomach shadow was visualized under the left dome of the diaphragm. Repeated scanning showed changing contour of the above described transonic area suggestive of peristalsis. These findings were in favour of the diagnosis of diaphragmatic hernia associated with polyhydramnios.

## Discussion

Embryologically the diaphragm is formed by the fusion of 4 components

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