



Management of anesthesia in henoch schonlein purpura: a case report Henoch schonlein purpurasında anestezi yönetimi: olgu sunumu

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Abstract

Henoch schonlein purpura (HSP) is the most common kind of acute small-vessel vasculitis especially affecting children. It is initiated by deposition of immune complexes as responses to infections such as group A streptococci, mycoplasma, Epstein -Barr, and Varicella zoster. HSP is characterized as a systemic vasculitis involving skin, gut, kidneys and joints. Skin rashes, arthritis, abdominal pain and nephritis are the main clinical features. HSP is a medical disease and requires supportive treatment. Treatment is symptomatic. Immunosuppression is another treatment modality. It may be beneficial on extrarenal lesions but controlled trials are needed to show the efficacy of the immunosuppressive treatment. The long term morbidity depends on the renal and neurological involvement. We present a 36- year old man who was a known case of HSP underwent a right ureter stone surgery. He was stable both intraoperative and postoperative periods. We wanted to underline the management of anesthesia in HSP patients.

Keywords: Henoch Schonlein Purpura; Anesthesia; Ureter Stone.

Öz

Henoch Schönlein purpurası (HSP), özellikle çocukları etkileyen akut küçük damar vaskülitlerinin en sık görülen türüdür. HSP; streptococci, mikoplazma, Epstein -Barr ve varicella zoster gibi enfeksiyonlara yanıt olarak oluşan immün komplekslerin çökmesiyle başlatılır. HSP cilt, bağırsak, böbrek ve eklemleri içeren sistemik bir vaskülit olarak karakterize edilir. Deri döküntüleri, artrit, karın ağrısı ve nefrit temel klinik özellikleridir. HSP destekleyici tedavi gerektiren bir hastalıktır. Tedavi semptomatiktir. İmmünsüpresyon başka bir tedavi modalitesidir. İmmünsüpresyonun ekstrarenal lezyonlar üzerine etkili olduğu gösterilmiş ancak kontrollü klinik çalışmalarla immünsüpresif tedavinin etkinliği gösterilmelidir. Uzun süreli morbidite böbrek ve nörolojik tutulumuna bağlıdır. Biz HSP olduğu bilinen, sağ üreter taşı cerrahisi uygulanan 36 yaşında erkek hastayı sunduk. Hasta, hem intraoperatif hem de postoperatif stabil seyretti. Biz HSP hastalarında anestezi yönetimini vurgulamak istedik.

Anahtar Kelimeler: Henoch Schonlein Purpurası; Anestezi; Üreter Taşı.

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INTRODUCTION

HSP is a kind of vasculitis, characterized by systemic leucocytoclastic angiitis, deposition of immunoglobulin-A containing immune complexes, and complement activation. The skin, joints, gastrointestinal system, and kidneys are the mainly affected organs in HSP. HSP generally carries favorable prognosis. Patients with HSP were shown to have abnormal platelet aggregation, or altered coagulation-fibrinolysis mechanism. Both elevated von Willebrand factor and decreased factor XIII activity have been reported in patients with HSP. These mechanisms might be responsible for renal involvement as well as other devastating complications (1).

CASE REPORT

A 36-year old man who was a known case of HSP for 12 years underwent a right ureter stone surgery. On examination he was 1.78 cm and was weighed 85 kg. Body mass index was 26,8. He had been taking azathioprine for HSP about 4 years, steroids for 4 years and 5 mg ramipril for chronic hypertension. He had no purpuric lesions on the examination and there was no limitation of movement in upper and lower extremities. The thyromental distance was 7.5 cm. Mallampati was grade two. Laboratory examination showed blood glucose:84 mg/dL urea:27mg/dL serum creatinine:0,83 mg/dL, AST:22 U/L ALT: 25 U/L, Ca:9.8mg/dL Na:139 mmol/L K:4.6 mmol/L WBC:9.5 10^3 u/L RBC:5,5 10^3 u/L, PLT:281 10^3 u/L, HB:16.5 gr/dL, HTC:% 48,6, APPT:29.1 second, INR:1,1, PT:13.2 second.

He received no premedication against the possibility of difficulty in intubation. He was monitored continuously for pulse rate, electrocardiography (ECG), oxygen saturation (SpO₂), and non invasive blood pressure (NIBP) in the operating room. Anesthesia was induced with 60 mg lidocaine, 40 mcg remifentanyl, and 200 mg propofol and a no: 4 laryngeal mask was inserted at once without any problem. He was followed in VCV mode. Anesthesia was maintained with 50% O₂, 50% N₂O, and 2% sevoflurane. 20 mg furosemide, 1 gr sefazoin sodium, 25 mg meperidin were given intraoperatively. The patients SpO₂ of 99-100% throughout the duration of surgery. There was no problem during the operation and the operation time was 25 minutes. The LMA was removed when the patient was fully awake. He was stable postoperatively and followed about 20 minutes in postoperative care unit and then discharged to his surgical unit.

DISCUSSION

HSP was first described in 1837 by Heberden and William (2). It is initiated by deposition of immune complexes as responses to infections such as group A streptococci, mycoplasma, Epstein -Barr, and Varicella zoster. It usually affects skin, gut, joints and kidneys, but may rarely have systemic manifestations seen as hepatosplenomegaly. Pulmonary hemorrhage and myocardial infarctions are the rare fatal complications of HSP. It presents classically with a unique area. Knees, ankles, and elbows are the most common affected joints. HSP is not known to leave any permanent

deformity. Renal involvement is characterized by hematuria and proteinuria. Severe renal and central nervous system disease may cause life-threatening conditions, and immunosuppressive agents and plasmapheresis may be required (3).

HSP is self-limiting in 94% of children and 89% of adults (4). Symptomatic treatment is sufficient in case of only rash and joint pain. Oral steroids like prednisolone or methylprednisolone can be started and tapered down (4,5). Immunosuppressive drugs (cyclophosphamide, azathioprine, cyclopropane A, mycophenolate mofetil) in combination with high dose pulse steroids are recommended for rapidly progressive glomerulonephritis and hemorrhages in the lungs and brain (4). Veins can be deep seated because of long-term corticosteroid treatment and hence difficult cannulation is a possibility. Perioperative steroid cover can be instituted in those on treatment with steroids (3).

HSP is a medical disease and requires supportive treatment. Immunosuppression is another treatment modality. It may be beneficial on extrarenal lesions but controlled trials are needed to show the efficacy of the immunosuppressive treatment. We considered all types of anesthesia and the operation was short and we decided to laryngeal mask. Evaluation of kidney and liver function before the operation is very important in HSP patients. Isoflurane or Sevoflurane for maintenance may be safer for kidney and liver functions (3). Anesthesiologists should be familiar to the possible airway difficulties and other associated problems with HSP patients especially when these patients undergo emergence surgeries (2).

There was no clinical problem intraoperatively and postoperatively in our patient. Our patient's laboratory result showed normal coagulation profile and there was no sign of renal, pulmonary, or other complication. We decided laryngeal mask because the surgeon pointed out the estimated surgery period. The insufficient literature and potential bleeding risk in the epidural space lead not to perform spinal and/or epidural anesthesia for this HSP patient (3).

In conclusion, unfortunately there is no standard anesthesia management in HSP patients. Possible airway difficulties and other associated problems should be taken into consideration.

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