

### 급성 백혈병의 발현으로 나타난 비전형 용혈 요독 증후군

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용혈 요독 증후군은 용혈성 빈혈, 혈소판 감소, 신 기능 이상을 보이는 임상 증후군이다. 전형적인 용혈 요독 증후군은 혈성 설사가 선행하며 많은 경우 *E. coli* 감염과 관련되어 있다. 비전형 용혈 요독 증후군은 다양한 원인의 결과로 나타나며 한가지 기전으로 설명하기 어렵다. 악성 종양 환자에서 용혈 요독 증후군은 항암화학치료의 부작용으로 나타날 수 있으나, 용혈 요독 증후군이 선행해서 나타난 보고는 매우 드물다. 저자들은 급성 림프구성 백혈병의 발현으로 나타난 용혈 요독 증후군을 경험하여 보고하고자 한다.

5세 남아가 5일간의 발열 후 나타난 창백과 콜라색 소변으로 내원하였다. 장염의 병력은 없었다. 혈색소는 4.9g/dL, 혈소판은 87,000/mm<sup>3</sup>, 망상구는 7.0%이었다. 말초 혈액 도말에서 다염성, 분절 적혈구, 대소부동증의 소견이 보였다. Blood urea nitrogen은 24mg/dL, 혈청 크레아티닌은 0.9mg/dL 이었다. 신선 동결 혈장 투여 후 검사 소견은 정상화 되었으나 경도의 단백뇨는 계속되었다. 4개월 후 창백과 고질산혈증이 재발하며 용혈 요독 증후군 재발을 의심하여 혈장을 투여하였으나, 빈혈과 혈소판 감소는 계속되었고 미열이 지속하였다. 재발 4주 후 백혈구가 1,010/ $\mu$ L까지 급격히 감소하였고, 골수 검사 결과는 급성 림프구성 백혈병(ALL, L1)이었다. 환아는 항암화학치료 (CCG1952)를 받았고, 이후 18개월 동안 완해 상태를 유지하고 있으며 신 기능은 정상이다.

저자들은 이 환아에서 용혈 요독 증후군이 급성 백혈병의 발현으로 나타났다고 진단하였다.

### Pelvic Aspergillosis with Tubo-ovarian Abscess in a Renal Transplant Recipient

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Common clinical manifestations of aspergillosis in renal transplant recipients are fever and pulmonary infiltrates, but involvement of reproductive system is rare. We report a case of pelvic aspergillosis with tubo-ovarian abscess in a renal transplant patient.

A 39-year-old female patient was admitted because of left lower abdominal discomfort which had developed 4 months and aggravated 2 weeks prior to admission. Her past medical history included end-stage renal disease from chronic glomerulonephritis. The patient received a cadaveric renal transplantation in August 1998. The early post-operative course was complicated by two episodes of acute rejection which resolved after methylprednisolone pulse therapy. Then, she was well with the immunosuppressive regimens of cyclosporin A (200 mg/day), prednisolone (7.5 mg/day) and mycophenolate mofetil (2.0 g/day). The laboratory investigations showed leukocytes 8,500/ $\mu$ L with 73.6% segmented neutrophils, hematocrit 29.9%, platelet 217,000/ $\mu$ L, erythrocyte sedimentation rate 131 mm/hour, C-reactive protein 18.7 mg/dl, blood urea nitrogen 19.3 mg/dl and serum creatinine 1.1 mg/dl. The through level of cyclosporine was 145 ng/ml in whole blood. A pelvic ultrasonogram revealed 6.0 $\times$ 5.5 $\times$ 4.3-cm-sized cystic mass with internal echogenic materials above the urinary bladder in left pelvic cavity. Abdominopelvic CT demonstrated 6.5 $\times$ 5.5 $\times$ 4.0-cm-sized enhancing thick walled cystic mass in lower abdominal and left pelvic cavity. At laparotomy severe adhesion was noted between sigmoid colon and urinary bladder. Abscess drainage with culture and biopsy of abscess pocket were performed. Histologic examination of biopsy specimens revealed spindle-shaped, fibroblast-like cells normally seen in ovarian cortex, and numerous branching septate fungal hyphae stained by methenamine-silver were noted in the specimens from abscess wall, which was compatible with *Aspergillus*. Culture of the abscess yielded *Aspergillus fumigatus*. The patient was diagnosed as pelvic aspergillosis with tubo-ovarian abscess. With amphotericin B treatment with a cumulative dose of 2.0 g, abdominal discomfort subsided and erythrocyte sedimentation rate and C-reactive protein were progressively reduced to normal. She is currently being followed as an outpatient and remains asymptomatic without maintenance itraconazole therapy.