ANTINEUTROPHIL CYTOPLASMIC ANTIBODY-ASSOCIATED NEUTROPENIA IN A PATIENT WITH TYPE 1 DIABETES MELLITUS

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Background: Antineutrophil cytoplasmic antibodies (ANCA) are associated with different diseases, but its association with neutropenia is extremely rare and a recently described entity. ANCA-associated autoimmune neutropenia may coexist with other autoimmune diseases, but this is the first report that describes this rare entity in a type 1 diabetic patient.

Case report: Our case is a 37-year old male, who admitted to hospital several times with infections accompanying neutropenia. On his last admission, he had fever, chills, abdominal pain, nausea, vomiting and diarrhea. He had been treated with an insulin regimen for six years, but HbA₁C level was 8.4%. Further investigation revealed high CRP (23 mg/L) and ESR (30 mm/h), positive RF (16.7; normal range 0-15) and C-ANCA levels. Whole body CT scan failed to identify a lesion and he received 15-day tazobactam antibiotherapy. Filgrastim (G-CSF) was given, but neutrophil counts did not respond and we switched to steroid therapy. Symptoms got better, neutrophil counts rised gradually and antibiotherapy was stopped. Due to the potential side effects of steroids and abnormal blood sugar levels, we started intravenous immunoglobulin (IVIG) therapy (400mg/kg/day-monthly) with moderate doses of prednisolone.

Conclusions: Coexistence of ANCA-associated neutropenia with type 1 DM may be attributed to common autoimmune mechanisms involved in their pathogenesis. However, control of autoimmune neutropenia in a diabetic patient is a difficult task.