中文題目：在一位潰瘍性結腸炎病患身上偽裝成壞疽性膿皮症的肺外結核菌感染

英文題目：Extra-Pulmonary Tuberculosis Infection Disguised as Pyoderma Gangrenosum in A Patient of Ulcerative Colitis

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Introduction

Refractory ulcerative colitis (UC) and extra-intestinal manifestations (EIM) were tricky to every inflammatory bowel disease (IBD) patients and speciailst. Before starting biologic agents, potential infections should be evaluated. Here is a rare case with tuberculosis infection in UC.

Case report

This is a 71-year-old female patient who was diagnosed of ulcerative colitis since December, 2013. She had not taken cigarette, alcohol or betel before. She didn't receive appendectomy before, either. There was no IBD history in her family.

Her initial presentation was bloody stool and severe diarrhea for one week. Lab showed hemoglobin 7.5 g/dL, albumin 1.7 g/dL, and C-reactive protein 30.8 mg/L. At first, colonoscopy showed multiple ulcers and some adenomatous polyps. Both oral form and rectal enema of mesalazine were prescribed and symptoms improved.

However, about half a year later, the patient was attacked from severe diarrhea with bloody stool again. Cramping pain over whole abdomen and weight loss for 22 kilograms were also noted. Colonoscopy revealed pancolitis and bleeding (Image 1), which was treated by argon plasma coagulation. The pathology was consistent with endoscopic findings. Lab showed positive cytomegalovirus (CMV) reaction and negative findings of p-ANCA, c-ANCA. ESR was elevated. Medication was shifted to high dose mesalazine and methylprednisolone. Rectal enema of mesalazine was kept used. Gancyclovir was prescribed for CMV infection, and symptoms improved.

Moreover, refractory ulcerative colitis exacerbations still occurred in the following one year. Meanwhile, steroid dependence was noted. Azathioprine (Imuran) was then applied and steroid (prednisolone) was then tapered to oral form 5 mg per day.

In May 2015, the patient was noted right wrist swelling and erythematous change. Extraintestinal manifestation (EIM) were suspected, such as pyoderma gangrenosum. Antinuclear antibody (ANA) and double strand DNA were elevated. Two weeks later, the patient was admitted due to UC flare up again. Oral form mesalazine,

sulfasalazine and methylprednisolone were used.

One month later, the patient was admitted again due to right forearm swelling (Image 2) for 10 days and fever for one day. Blood culture showed Bacillus species, which was suspected contamination. Cellulitis was impressed so antibiotics was used as Tazocin, then changed to oxacillin, and then changed to Tazocin. One month later, the previous swelling site seemed not recovered and pus formation was noted. Pyoderma gangrenosum was highly suspected. Anti-tumor necrosis factor (anti-TNF) was considered.

Before starting anti-TNF, latent infection should be surveyed. Interferon gamma release assay (IGRA) was positive. Pathology also showed positive TB and then anti-TB medication was prescribed. The lab data curves also improved (Figure 1, 2, 3).

To our surprise, after TB treatment, symptoms and Mayo Endoscopic Score (MES) improved.

Discussion

Refractory UC is troublesome and how to manage EIM and opportunistic infections are difficult and long. In the group of UC patients, 25% of patients might encounter at least one EIM, such as musculoskeletal, eye, skin, hepatobiliary, hematopoietic, and pulmonary manifestations[1]. In Taiwan, UC patients exhibit less EIM compared with patients in Western countries[2].

One study from Korea showed 11.4% latent tuberculosis infection (LTBI) prevalence in 740 IBD patients[3]. More IBD patients are being treated with anti-TNF agents. The higher increased risk of developing TB reactivation is discovered. Therefore, diagnosis and treatment of LTBI is suggested in patients who will start anti-TNF therapy[4].

Anti-TNF therapy is a significant medication for moderate or severe UC patients. Azathioprine and 6-mercaptopurine could be prescribed together[5].

Before starting anti-TNF, screening for latent TB infection with chest X-ray, IGRA or tuberculin skin test (TST) is recommended[6]. The American Thoracic Society also encourages TB prevention by IGRA screening. If IGRA was positive, prophylactic TB medication should be used at least one month[7]. A recent study showed only 1 patient of 35 IBD patients taking isoniazid for 6 months developed TB reactivation after receiving biologic therapies. The estimated TB reactivation rate was 0.98 cases per 100 patient-years of follow-up in this study[8]. Meanwhile, if LTBI was not treated, a recent UC case report in Korea showed multidrug-resistant disseminated TB after 6 months of starting infliximab therapy with negative evaluation for LTBI[9].

The priceless lessons of this case report are it's worthy to evaluate LTBI and make

differential dignoses of EIM-like symptoms and signs of TB infection, and treating TB infection seems to bring good impacts for UC. However, the mechanism is still not well established. If anti-TNF was used, the outcome might be worsened.

Conclusion

Evaluating TB infection disguided as EIM in UC patients was important. The mechanism of UC activity related to opportunistic infection is also a good promising goal for further investigation. We need more biological and molecule researches, meta-analyses and systemic reviews in the future.

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Figure 1

Figure 2

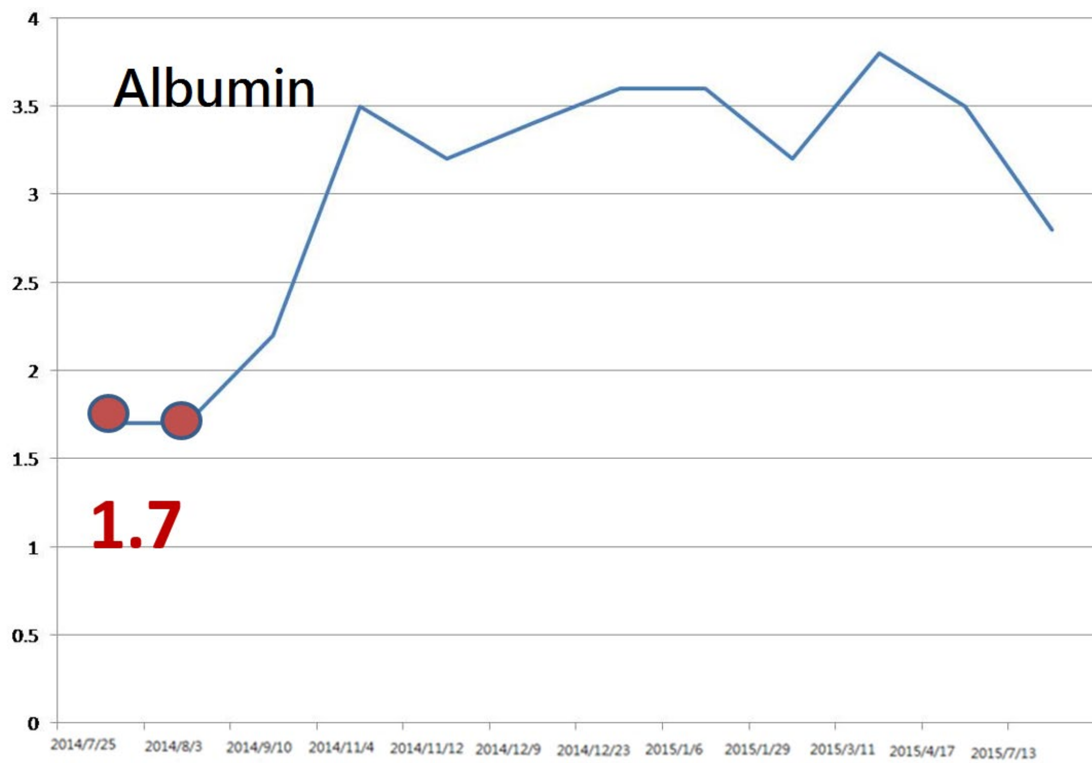

Figure 3

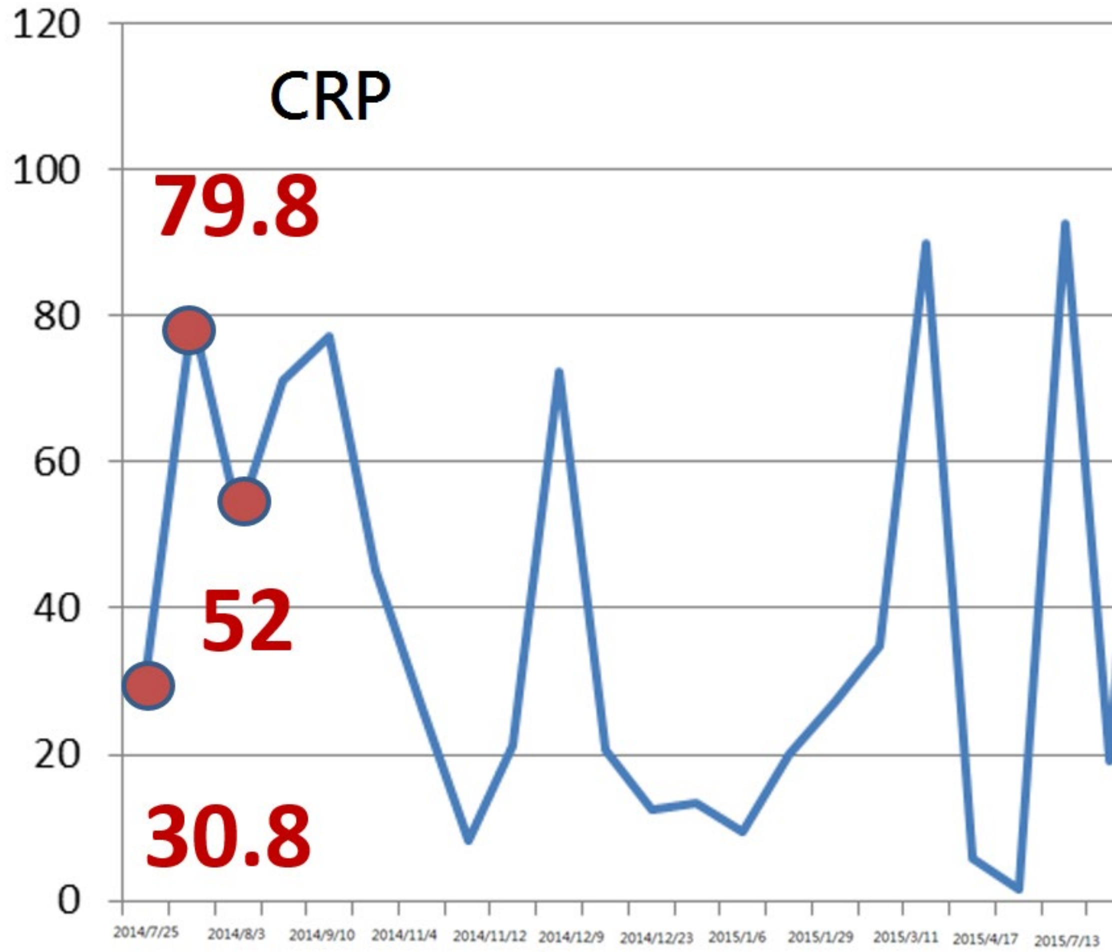

Image 1

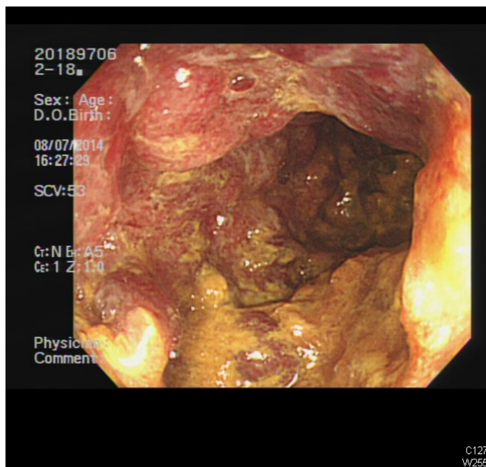

Image 2