

Case Blog

Title: Pay Attention while Taking Fingertip Blood Sample in Neutropenic Patients

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Figure 1: Image of the finger on the first day.

Figure 2: Demarcation line on the finger.

Figure 3: Periost reaction and deteriorated bone zone.

Case Blog

A 12 year-old male patient was treated because of bladder rhabdomyosarcoma relaps in our oncology department. He has a residual disease on the primary region and distant metastasis on the liver. Due to the tumor, he had taken four cycles of ICE chemotherapy which includes carboplatin, ifosfamide and etoposide. As it known, ICE protocol is expected to give rise to severe neutropeni in solid tumor patients so the eighth day of last cycle of chemotherapy we checked his blood results as usual.

In our clinic we use finger tip blood sample method as a practical method and we have never seen any complications up to day. However, in this patient accidentally after two days taking of blood sample erythema, pain and swelling started around the blood taken region. Although we used antiseptic solution before taking blood we could not prevent infection of the finger. As expected leukocyte value was found very low (200 mm³). We thought that distrupting of skin surface and neutropenia caused to cellulite appearing. As it seen in Figures 1 and 2, it progressed rapidly. The image of the deteriorated bone periost of distal phalanges alerted us on the X-Ray and we started broad-spectrum antibiotics showing gram-positive activity in order not to exclude osteomyelitis (Figure 3).

As it seen in the figure, neutropenic patient's finger was getting more and more about pain and swelling. In the next step demarcation line observed but fortunately patient's capillary circulation time was normal. We started G-CSF and IVIG infusion to increase leukocyte and limit the spread of infection. We supported the finger with splint. One week later the fingertip lesion began to heal. We want to underline that any attempt in neutropenic patients could increase the risk of infection so even seemingly simple process be careful and think several times.

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