



Criminalistics Section - 2016

B81 Fingerprint Loss in a Cancer Patient With No Side Effects

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After attending this presentation, attendees will better understand the effects of chemotherapy on fingerprints.

This presentation will impact the forensic science community by raising awareness of the effects of chemotherapy, which may cause the loss of papillary fingerprints.

The case of a 75-year-old man with stage III colon cancer who received a six-month adjuvant chemotherapy treatment with capecitabine and oxaliplatin with no side effects is presented. During the first six-month follow-up visit, he was healthy, but as he was leaving, he incidentally asked if chemotherapy could have altered his fingerprints. In fact, his bank had recently denied access because his fingerprints were not recognizable. Moreover, he had to switch off his iPhone® Touch ID because it would not work anymore.

As it was known that he had not experienced any grade of skin toxicity during chemotherapy, he was asked to be fingerprinted for comparison, but the older fingerprints were unavailable, which represented a big issue. After two months of unsuccessful research and attempting to find a solution, the patient reported that he was again able to enter his bank. By comparing his fingerprints during and after chemotherapy, the loss of fingerprints was confirmed due to the presence of thinner ridges, a narrowing of the height between the top and bottom of the groove, and the absence of the relief, thus creating problems in scanner readings.

Cases of fingerprint loss during chemotherapy have previously been reported and have always been associated with some degree of hand/foot syndrome; however, this particular situation is the first-ever reported case with no skin toxicity.

Two practical conclusions can be drawn from this information: (1) fingerprint alteration might also arise in the absence of other clinical signs and this can be a handicap in patients taking chemotherapy drugs; therefore, they should be aware of this possibility; and, (2) this process is reversible and therefore needs to be brought to the attention of banks and the police force in order to avoid unpleasant consequences.

Fingerprint, Chemotherapy, Loss