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# Forensic Image Comparisons of Penis in the Identification of a Sexual Offender

## Cinsel Suç Sanığının Tanımlanmasında Penisin Adli Görüntü Karşılaştırmaları

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**ABSTRACT** Sexual harassment is defined as a social problem that affects people in all public places. The spread of the internet has also led to the spread of sexual harassment and child pornography. In this study, an analysis is presented with the contributions of a dermatologist and urologist, of 2 suspects of a penis-hand image shared with a 12-year-old girl on a social network. When the photographs of the penises held in the hands of the 2 suspects were compared with the photograph shared on the social network, the nevus, wound scars and morphological features were found to be compatible with the penis of one of the suspects. The comparison also benefited from the similarity and difference of the vascular structure in the dorsum of the penis. Consequently, it was recommended to establish a comparison procedure for such genital area image comparisons, especially in cases where the number of suspects increases.

**Keywords:** Penis; image comparison; nevus; vascular structure; sexual harassment

**ÖZET** Cinsel taciz, tüm halka açık yerlerde insanları etkileyen sosyal bir sorun olarak tanımlanmaktadır. İnternetin yaygınlaşması aynı zamanda cinsel taciz ve çocuk pornografisinin de yayılmasına yol açmıştır. Bu çalışmada, bir sosyal ağda 12 yaşındaki bir kız çocuğu ile paylaşılan penis-el görüntüsünün 2 şüphelisinin dermatolog ve ürologun katkılarıyla analizi sunulmaktadır. İki zanlının elinde tutulan penislerin fotoğrafları sosyal ağda paylaşılan fotoğrafla karşılaştırıldığında, nevüs, yara izleri ve morfolojik özelliklerin zanlılardan birinin penisiyle uyumlu olduğu belirlendi. Karşılaştırmada aynı zamanda penisin dorsumundaki vasküler yapının benzerliğinden ve farklılığından da yararlanıldı. Sonuç olarak, özellikle şüpheli sayısının arttığı durumlarda, bu tür genital bölge görüntü karşılaştırmaları için bir karşılaştırma prosedürü oluşturulması önerilmiştir.

**Anahtar Kelimeler:** Penis; görüntü karşılaştırması; nevüs; damar yapısı; cinsel taciz

Sexual harassment is defined as a social problem that affects people at work, at school, and in public places.[1] Since the 1990s, with the widespread use of computers and the internet in daily life, the concept of cybercrime has emerged, which is defined as crimes committed through computers or a network. One such cybercrime is online harassment, and recent studies have shown that online harassment is increasing rapidly.[1,2] The spread of the internet has also led to the spread of child pornography by facilitating the communication of people with sexual interest in children through chat rooms, websites and e-mail.[3]

The fight against child pornography in the world has gained momentum in recent years and has begun to achieve success. In this context, the role of forensic scientists comes to the fore in comparing the images detected on the network or computers with the images obtained from the accused. Recently, Yamada et al. presented a case report comparing penis images

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obtained from videotape in mobile phone of a young man's accused sexually assaulting to a teenage girl, with photographs of his penis.[4]

In this study, an analysis is presented with the contributions of a dermatologist and urologist of 2 suspects of a penis-hand image shared with a 12-year-old girl on a social network. In this context, the importance of image comparisons of genitalia in forensic medicine will be discussed.

This study was prepared with the approval of Ethics Committee, Medical Faculty of Van Yüzüncü Yıl University dated 19.11.2021 and numbered 2021/12-10. Written informed consent was obtained from the patients for the study and the Helsinki Declaration was followed.

## CASE REPORT

One of 2 people working as a night shift security guard at an institution opened a fake account on a social networking application on the institution's computer and shared a photograph of his own genitals with a 12-year-old girl. The sending of the photograph in this way was detected in the network scans carried out by the National Center for Missing and Exploited Children (USA), and it was considered within the scope of sexual abuse against the child. The IP address of the computer, the date and time of the sharing were determined and reported to the addressees in Türkiye. At approximately 8 months after this network share, police investigators identified 2 security guards who were likely to have used the computer specified on the date and time of the incident. A lawsuit was filed against the defendants and the trial process began. The judge was asked to make a comparison between the existing photograph and the penises-hands of the 2 suspects with expert examinations made by the forensic medicine specialist. A dermatologist and a urologist were also consulted for the examination and evaluation.

First, the picture which was shared on the social network, was inspected for morphological shape of penis, the skin color and the hair structures. In the second stage, penises of two suspects were photographed after they were informed, and written consent was obtained from each of them. Afterwards, images of erect penises were obtained by injecting Papaverine into the penises of both suspects.

In the final stage, the penis-hand photograph shared on the network was compared with the penis photographs obtained from the suspects. Additionally, some structures and lesions in the comparison photograph were significantly similar to those in the photographs obtained from the first suspect. These structural and lesion similarities were seen in the following areas: 1) old and new skin lesions in the glans penis (possible old skin disease scars), 2) a nevus on the anterior-middle side of the left thigh, 3) an incision scar on the proximal of second finger in left hand, 4) characteristic squamous (rash) skin lesions between the first and second fingers of the left hand (Figure 1), and 5) the superficial vascular structures on the proximal dorsum of the penis (Figure 2). The morphology of the second suspect's penis was considerably different from the comparison image, the penile skin was dark in color and had a low foreskin. The second suspect's hand and penis photographs did not include the nevi or other structures that were visible in the comparison photograph. (Figure 3).

It was reported to the court that there were significant similarities between the comparison photograph and the penis and hand photographs of the 1st suspect, while there were significant differences between the comparison photograph and the penis and hand photographs of the 2nd suspect and no characteristic similarities were observed. The first suspect confessed to the crime and was sentenced to prison under Article 226 of the Turkish Penal Code.

## DISCUSSION

Identification and comparison are 2 methodologies frequently used by forensic sciences. Forensic image comparisons are used to compare a wide variety of evidence obtained from crime scenes, such as fingerprints, blood prints, shoe prints, document writing, signature and other characters (both typed and handwritten), tyre tracks, and tool marks.[5] The image material submitted for comparison may con-

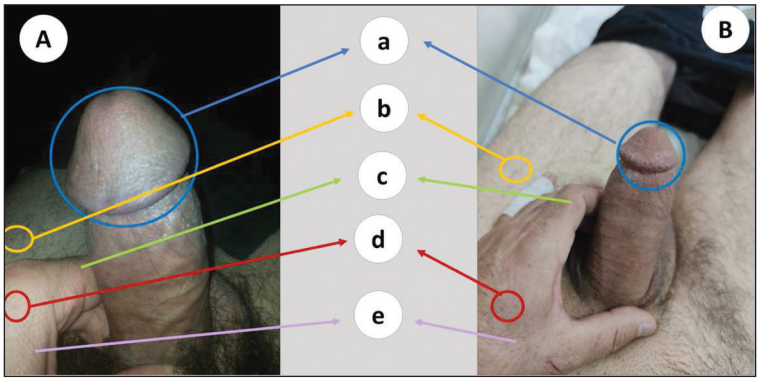


**FIGURE 1:** Comparison of the photograph shared on the social network **(A)** and the photograph obtained from the first suspect **(B)**: **a)** Shape similarity and old and new skin lesions in the glans penis, **b)** A nevus on the anterior-middle side of the left thigh, **c)** Old incision scar on the proximal left hand 2nd finger, **d)** A nevus near the metacarpophalangeal joint of the 2nd finger between the 1st and 2nd fingers of the left hand, **e)** Characteristic squamous (rash) skin lesions between the 1st and 2nd fingers of the left hand.

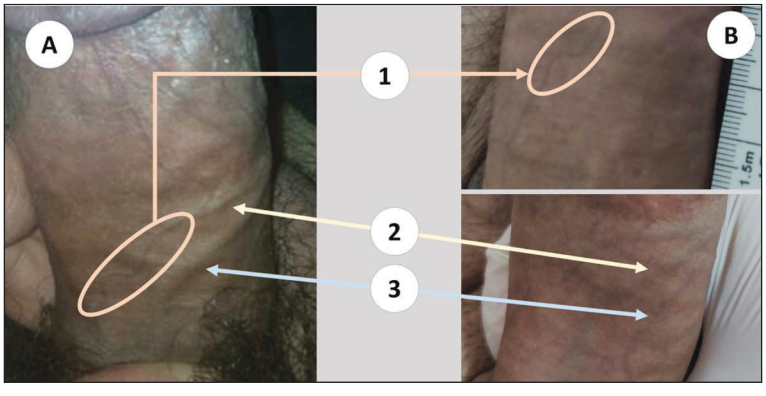


**FIGURE 2:** Comparison of the photograph shared on the social network **(A)** and the photograph obtained from the 1st suspect **(B)**: similarity at 3 points in the superficial vascular structure.

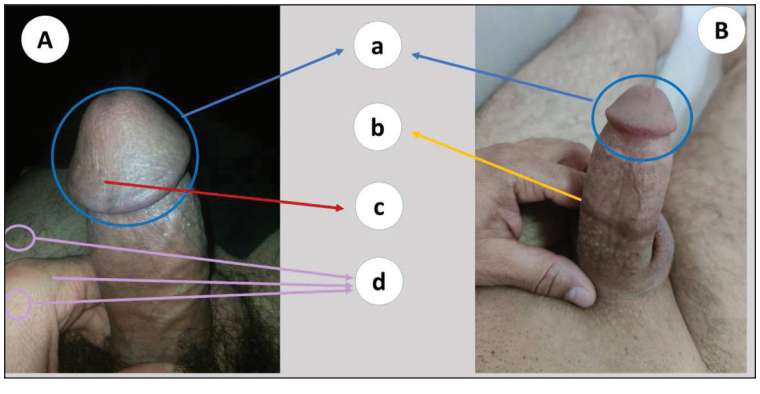


**FIGURE 3:** Comparison of the photograph shared on the social network **(A)** and the photograph obtained from the 2nd suspect **(B)**: **a)** Significant difference in shape in the glans penis, **b)** Dark colored and low foreskin on the penile skin, seen only in the photograph of the 2nd suspect, **c)** Healed wounds on the glans penis, seen only in the photograph shared on the social network, **d)** Lesions on the hand including old incision scar, a nevus and characteristic squamous skin lesions, seen only in the photograph shared on the social network.

sist of photographs, video material, or photographs of each, as well as video footage.[6] Black et al. stated that the location and appearance of nevi on the hand can be used in photographic comparisons.[7] Genital melanosis is a rare condition that can be seen at an incidence of 0.01% among dermatological patients.[8] Yamada et al. compared the penis image obtained from the phone of a young man accused of sexual assault on a young girl with the image obtained from him. They saw the skin pigmentations with similar involvement in both images, which they diagnosed as melanosis. They revealed that the penis images in the videotape belonged to the defendant and stated that melanosis can be used for comparison of genital region photographs.[4] Although penis sizes have been described in a few studies for urological purposes, we did not find any information in the literature regarding the use of penile measurements as a forensic comparison procedure.[9,10]

In this study, the comparison was facilitated by the fact that there were only 2 suspects, the hand and thigh region were also seen in the photo shared on the network, and the presence of dermatological lesions in these regions. Likewise, the similarity or dissimilarity in the vascular structures in the dorsum of the penis was recorded as a remarkable feature, although no similar case could be found in the literature.

It can be considered that forensic scientists may encounter requests by legal authorities about comparison of genitalia images more frequently in the near future due to the increase of harassment with genital posts on social networks in recent years. It can be recommended that a comparison procedure is established for such genital area image comparisons, especially in cases where the number of suspects increases.

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### *Conflict of Interest*

*No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.*

### *Authorship Contributions*

***Idea/Concept:*** *Erhan Kartal, Mahmut Aşırdizer;* ***Design:*** *Erhan Kartal;* ***Control/Supervision:*** *Erhan Kartal;* ***Data Collection and/or Processing:*** *Erhan Kartal, Ömer Akburak, Mehmet Esat Kösem;* ***Analysis and/or Interpretation:*** *Erhan Kartal, Ömer Akburak, Mehmet Esat Kösem;* ***Literature Review:*** *Mahmut Aşırdizer;* ***Writing the Article:*** *Erhan Kartal;* ***Critical Review:*** *Mahmut Aşırdizer.*

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