MULTIPLE HEMANGIOMAS ON THE HEAD OF THE PENIS

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Abstract. Hemangiomas are benign vascular malformations consisting of enlarged, tortuous, dysplastic vascular chambers. May remain inconspicuous for a long time if deeply located, or be visible early in life if superficial or large enough to cause deformity. Clinically they appear as blue soft vascular masses. Depending on their location, they cause symptoms such as pain, heaviness, swelling, ulceration, bleeding, and thrombosis.

They can be localized all over the body, but are rarely found on the genitals. In the general structure of hemangiomas, the share of formations of such localization is only 1-2%. There are few reports of hemangiomas localized on the genitals, as a rule, they relate to surgical treatment, which was used to eliminate a cosmetic defect, relieve pain, or functional disorders.

As a rule, patients seek help in the case of hemangiomas of a significant size, while small formations are ignored until they grow.

Case Presentation: We bring to your attention a clinical case of multiple hemangiomas on the head of the penis in a 34-year-old patient A. The patient applied for a preventive examination of the skin surface for possible neoplasms, the family history is burdensome, a case of melanoma of the skin was diagnosed in the family. During the examination in the genital area, with a predominant localization on the head of the penis, small spotted-papular rashes of red-blue color were revealed.

According to the patient, they have existed for many years and are gradually growing. Subjective sensations are mostly absent, but there may be discomfort, burning, and pain after sexual intercourse, which disappear after a few hours. The latter is probably associated with functional increased blood supply.

Taking into account the small size of the rash, dermoscopy was used to clarify the diagnosis. This is a research method based on inspection using optical magnification. It allows obtaining additional data regarding structural elements located on the surface of the skin and in its thickness. During the examination, against the background of typical mucous membrane, vascular structures, and diffuse pigmentation, multiple, different-sized, mostly round-shaped, blue globules located at different depths are determined. Also, among the diffusely scattered reticular vessels, significantly expanded, irregularly shaped vascular reservoirs are observed singly, which probably represent an intermediate stage before transformation into vascular globules.

The picture described corresponds to multiple hemangiomas. Photofixation was carried out, correction was performed to restore natural color and improve visualization using the ML Enhance tool, which is based on machine learning technology.

The patient was recommended to remove the elements of the rash that protrude above the level of the mucous membrane.

Conclusion: Thanks to the use of dermoscopy, hemangiomas are diagnosed at a stage when, given the size of the elements and their spread, the use of surgical treatment is impractical. The patient was recommended vascular laser treatment for the removal of individual hemangiomas that change the surface relief of the head of the penis and cause discomfort, and subsequent dynamic observation. Based on special place of localization by literature review, the best choice of method would be pro-yellow (577 nm) laser.

Keywords: haemangioma, dermoscopy.

Introduction: Hemangiomas are benign vascular malformations consisting of enlarged, tortuous, dysplastic vascular chambers. May remain inconspicuous for a long time if deeply located, or be visible early in life if superficial or large enough to cause deformity. Clinically they appear as blue soft vascular masses. Depending on their
location, they cause symptoms such as pain, heaviness, swelling, ulceration, bleeding, and thrombosis. [1]

They can be localized all over the body, but are rarely found on the genitals. In the general structure of hemangiomas, the share of formations of such localization is only 1-2%. [2] There are few reports of hemangiomas localized on the genitals, as a rule, they relate to surgical treatment, which was used to eliminate a cosmetic defect, relieve pain, or functional disorders. [1-5]

As a rule, patients seek help in the case of hemangiomas of a significant size, while small formations are ignored until they grow.

Case Presentation: We bring to your attention a clinical case of multiple hemangiomas on the head of the penis in a 34-year-old patient A. The patient applied for a preventive examination of the skin surface for possible neoplasms, the family history is burdensome, a case of melanoma of the skin was diagnosed in the family. During the examination in the genital area, with a predominant localization on the head of the penis, small spotted-papular rashes of red-blue color were revealed. (Figure 1)

According to the patient, they have existed for many years and are gradually growing. Subjective sensations are mostly absent, but there may be discomfort, burning, and pain after sexual intercourse, which disappear after a few hours. The latter is probably associated with functional increased blood supply.

Taking into account the small size of the rash, dermoscopy was used to clarify the diagnosis. This is a research method based on inspection using optical magnification. It allows obtaining additional data regarding structural elements located on the surface of the skin and in its thickness.

![Patient A. Spotty-papular rashes of red-blue color on the glans penis.](image)

During the examination, against the background of typical mucous membrane, vascular structures, and diffuse pigmentation, multiple, different-sized, mostly round-shaped, blue globules located at different depths are determined (Figure 2A). Also, among the diffusely scattered reticular vessels, significantly expanded, irregularly shaped vascular reservoirs are observed singly, which probably represent an intermediate stage before transformation into vascular globules (Figure 2B).

![Patient A. Dermoscopy of the mucous membrane of the head of the penis. Blue globules are located at different depths. (A) Dermoscopy of the mucous membrane of the head of the penis. Significantly expanded, irregularly shaped, vascular reservoirs. (B).](image)

The picture described corresponds to multiple hemangiomas. Photofixation was carried out, correction was performed to restore natural color and improve visualization using the ML Enhance tool, which is based on machine learning technology. [6]

Considering the typical picture of hemangioma and the possible discomfort caused by the presence of formations on the head of the penis, the patient is recommended to remove the elements of the rash that protrude above the level of the mucous membrane.

Various light and laser systems potentially can be used for therapy including IPL, PDL, KTP, and Nd:YAG. All of them has some disadvantages including leading to hypo and hyperpigmentation, scarring, post-laser effect-related purpura, discoloration of the lesion. Based on special place of localization by literature review, the best...
choice of method would be pro-yellow (577 nm) laser. No adverse effects were registered and demonstrated high efficacy in relation to angiokeratomas of genital localization. [7] The 577 nm pro-yellow laser can see the lesions 40% better than the KTP and 70% better than the 585 nm PDL. [8]

Conclusion:
1. Thanks to the use of dermoscopy, hemangiomas are diagnosed at a stage when, given the size of the elements and their spread, the use of surgical treatment is impractical. 
2. The patient was recommended vascular laser treatment for the removal of individual hemangiomas that change the surface relief of the head of the penis and cause discomfort, and subsequent dynamic observation. 
3. Based on special place of localization by literature review, the best choice of method will be pro-yellow (577 nm) laser.

References:
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Резюме. Гемангиоми є добреокисними судинними мальформаціями, що складаються зі збільшених, звинутих, диспластичних судинних камер. Клінічно виявляються як блакитні м'які судинні маси. Викликають такі симптоми, як біль, тяжкість, набряк, виразка, кровотеча та тромбоз.

Можуть бути локалізовані по всьому тілу, проте рідко зустрічаються на геніталіях. В загальній структурі гемангиом частка утворів таких локалізацій складає лише 1–2%. К правило пацієнти звертаються за допомогою у випадку гемангиом значного розміру, тоді як дрібні утворення залишаються поза увагою до моменту їх зростання. Підемпілення стосовно гемангиом локалізованих на статевих органах мало, як правило вони стосуються хірургічного лікування, яке полягає у відпрацюванні проміжної стадії трансформації в судинні плазми. Описано картина відповідає множинним гемангиома.

Висновки. Завдяки застосуванню дермоскопії гемангиоми діагностовані на етапі, коли зважаючи на розмір елементів та їх розповсюдженисть
використання хірургічного лікування недоцільне. Пацієнту рекомендовано застосування судинного лазера для видалення окремих гемангіом, що змінюють рельєф поверхні головки статевого члена та чинять дискомфорт, та наступне динамічне спостереження. Виходячи з особливого місця локалізації за даними огляду літератури, найкращим вибором методу буде про-жовтий (577 нм) лазер.

Ключові слова: гемангіома, дермоскопія.

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