

ВИПАДКИ З ПРАКТИКИ

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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

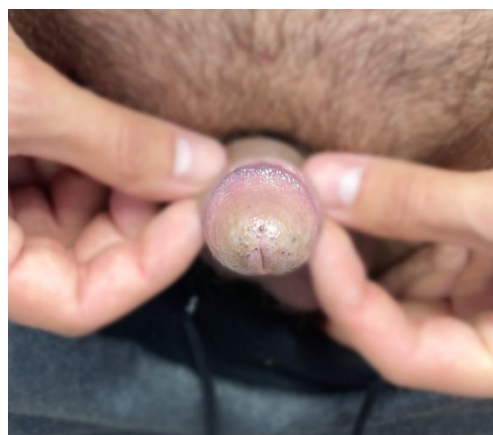


Fig. 1 Patient A. Spotty-papular rashes of red-blue color on the glans penis.

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).

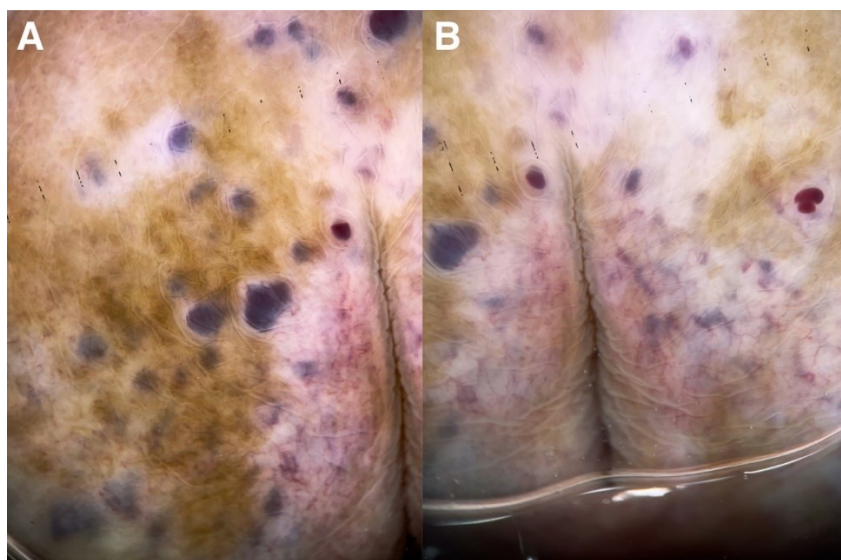


Fig. 2 Patient A. Dermoscopy of the mucous membrane of the head of the penis. Blue globules are located at different depths. (A) Dermoscopy of the mucous membrane of the head of the penis. Significantly expanded, irregularly shaped, vascular reservoirs. (B).

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:

- 1.
2. Fresa M, Mazzolai L. Venous malformation of the penis treated with a combined Nd:YAG laser and sclerotherapy technique. *Skin Health Dis.* 2022;2(3):e114. DOI: <http://dx.doi.org/10.1002/ski2.114>
3. Mondal S, Biswal DK, Pal DK. Cavernous hemangioma of the glans penis. *Urol Ann.* 2015;7(3):399–401. DOI: <http://dx.doi.org/10.4103/0974-7796.152037>
4. Kishore M, Bhardwaj M, Ahuja A. Epithelioid hemangioma of penis mimicking malignancy: A rare case. *Urol Ann.* 2017;9(4):397. DOI: http://dx.doi.org/10.4103/ua.ua_40_17
5. Ismail M, Damato S, Freeman A, Nigam R. Epithelioid hemangioma of the penis: case report and review of literature. *J Med Case Rep.* 2011;5(1):260. DOI: <http://dx.doi.org/10.1186/1752-1947-5-260>
6. Kim SH, Ahn H, Kim KH, Kim DS, Yang HJ. Penile schwannoma mistaken for hemangioma: a rare case report and literature review. *Transl Androl Urol.* 2021;10(6):2512–20. DOI: <http://dx.doi.org/10.21037/tau-21-239>
7. Voloshynovych M, Girnyk G, Chmut V, Matkovska N, Blaga I, Kozak N. Application of machine learning technologies to improve the diagnostic value of dermoscopy, combined with digital photo-fixation of skin neoplasms. *Dermatol Pract Concept.* 2022;12(4):e2022181. DOI: <http://dx.doi.org/10.5826/dpc.1204a181>
8. Ataseven A, Temiz SA, Özer İ. An investigation of the effectiveness of the 577-nm pro-yellow laser in patients with vascular disorders. *Eur J Ther.* 2023;29(1):49–54. DOI: <http://dx.doi.org/10.58600/eurjther-346>
9. Temiz SA, Ataseven A, Dursun R, Özer İ. Successful treatment of poikiloderma of Civatte with a 577-nm pro-yellow laser. *J Cosmet Dermatol.* 2020;19(10):2769–70. DOI: <http://dx.doi.org/10.1111/jocd.13650>

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МНОЖИННИ ГЕМАНГІОМИ НА ГОЛОВЦІ СТАТЕВОГО ЧЛЕНА

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Резюме. Гемангіоми є доброякісними судинними мальформаціями, що складаються зі збільшених, звивистих, диспластичних судинних камер. Клінічно виглядають 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 гемангіом частка утворів такої локалізації складає лише 1-2%. к правило пацієнти звертаються за допомогою у випадку гемангіом значного розміру, тоді як дрібні утворення залишаються поза увагою до моменту їх зростання. Повідомлень стосовно гемангіом локалізованих на статевих органах мало, як правило вони стосуються хірургічного лікування, яке застосовували для усунення косметичного дефекту, полегшення болю чи функціональних порушень.

Презентація випадку. В публікації описано клінічний випадок множинних дрібних гемангіом на головці статевого члена у хворого А. 34-ох років. Виявлені під час профілактичного огляду. Зважаючи на розмір висипань, для уточнення діагнозу використана дермоскопія. На фоні типових, для слизової оболонки, судинних структур, та дифузної пігментації, визначаються множинні, різного розміру, переважно округлої форми, синього-блакитного кольору глобули, що розташовані на різній глибині. Також поміж дифузною розсіяних ретикулярних судин поодинокі спостерігаються значно розширені, неправильної форми судинні резервуари, що ймовірно являють проміжну стадію перед трансформацією в судинні глобули. Описана картина відповідає множинним гемангіомам.

Висновки. Завдяки застосуванню дермоскопії гемангіоми діагностовані на етапі, коли зважаючи на розмір елементів та їх розповсюдженість

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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