OASIS DERMATOLOGY GROUP

Ph: (956) 971 - 0404
www.oasisderm.com

Syringoma

Syringomas are benign tumors originating from the eccrine sweat glands, commonly appearing as small, skin-colored or slightly pigmented papules around the eyes. These growths are typically non-cancerous and primarily present as cosmetic concerns. Although the condition is benign, it warrants proper diagnosis and management to alleviate symptoms, particularly in cases where the lesions interfere with appearance or quality of life.

Etiology and Pathophysiology

Syringomas are derived from the eccrine sweat glands, which are responsible for thermoregulation through sweat production. The exact cause of syringoma formation is not fully understood, but it is thought to involve genetic and environmental factors. Syringomas are typically caused by a localized proliferation of the eccrine duct epithelium, resulting in the formation of small, benign cystic growths. These lesions consist of epithelial cells that mimic the structure of the sweat glands, but the mechanism that triggers their abnormal growth remains unclear. The condition may have a hereditary component, as some familial cases have been reported.

Clinical Features

Syringomas usually present as small, firm papules that range from 1 to 3 millimeters in diameter. They can be brown, yellow, or pink in color and are often seen in clusters. The most common sites for syringomas are the periorbital region (around the eyes), neck, and upper chest. Less frequently, syringomas can affect the axillae (armpits), abdomen, and genitalia, with rare occurrences on the scalp, which may lead to localized hair loss. These lesions are generally asymptomatic, with pain or itching being uncommon. However, the appearance of the lesions may lead to cosmetic concerns, particularly when they occur in visible areas such as the face.

Epidemiology

Syringomas predominantly affect women, particularly those of Asian descent, including individuals of Japanese heritage, who are disproportionately affected. The condition typically manifests during adolescence, although it can begin at any age. Some individuals may experience "eruptive syringomas," a more severe form characterized by a sudden onset of numerous lesions. Eruptive syringomas are more commonly seen in younger individuals and can lead to more widespread involvement of the skin.

Diagnosis

The diagnosis of syringoma is primarily clinical, based on characteristic skin lesions and their distribution. The lesions are typically easy to recognize based on their size, color, and location. In cases where the diagnosis is uncertain, a skin biopsy may be performed to confirm the presence of eccrine gland proliferation. Histopathology examination reveals the characteristic features of syringomas, including ducts and cysts lined with epithelial cells resembling those of the sweat glands. Dermoscopy may also be helpful in confirming the diagnosis by providing a closer examination of the surface features and identifying distinctive patterns of the lesions.

Treatment

While syringomas are benign and require no treatment, those that are cosmetically bothersome or causing psychological distress may be addressed with various therapeutic interventions. Treatment options include:

- ***Laser Therapy****:* Laser ablation, particularly using the carbon dioxide (CO2) laser, is one of the most effective treatments for syringomas. The laser works by vaporizing the lesion and promoting collagen remodeling, reducing the appearance of the growths. Laser therapy offers precision and minimizes damage to surrounding skin, but it can be associated with scarring or hyperpigmentation.
- ***Electrosurgery***: Electrosurgical excision utilizes a high-frequency electrical current to remove the lesions. This technique is effective but may also lead to scarring, particularly if the lesions are larger or if the procedure is not carefully executed.
- ***Cryotherapy***: Cryotherapy, which involves the application of liquid nitrogen to the lesions, can also be used to freeze and remove syringomas. This method may cause some discomfort and has a risk of scarring or hypopigmentation, particularly in darker skin types.
- ***Dermabrasion***: Dermabrasion is a mechanical process that exfoliates the skin to remove layers of damaged tissue, making it useful for the treatment of syringomas. However, it can be painful and requires a longer healing period, with the possibility of post-procedural scarring.
- ***Topical Treatments****:* Although less commonly used, some individuals may attempt topical treatments such as retinoids or corticosteroids to reduce the size of syringomas. However, these options are typically less effective compared to surgical or laser interventions.

Recurrence and Prognosis

Syringomas tend to recur after treatment, especially when they are treated with methods that do not completely remove the lesions or when new lesions form in other areas of the skin. In many cases, however, the recurrence is not immediate and may take months or years to become

noticeable. The prognosis for individuals with syringomas is excellent, as the condition is benign and does not lead to any serious health complications.

Conclusion

Syringomas are benign, small growths of the eccrine sweat glands that primarily affect women and are most common around the eyes, neck, and upper chest. While typically asymptomatic and non-threatening, syringomas may be removed for cosmetic reasons. Laser therapy, electrosurgery, cryotherapy, and dermabrasion are the most commonly used treatments. All therapeutic options have a risk of scarring. As syringomas are benign, the prognosis is favorable, but patients should be informed of the potential for recurrence. Given their cosmetic nature, management should be individualized based on patient preference and the severity of the lesions.

References

- Dai, T., & Wu, X. (2020). Treatment of syringomas: A comprehensive review of therapeutic strategies. *Journal of Dermatological Treatment*, 31(4), 404-412. https://doi.org/10.1080/09546634.2020.1727024
- Liu, W., & Zhang, Y. (2022). Advances in the management of syringomas: A review. *Dermatologic Surgery*, 48(5), 674-681. https://doi.org/10.1097/DSS.0000000000002911
- Sharma, A., & Gupta, M. (2018). Syringoma: A review of clinical features, pathogenesis, and treatment. *International Journal of Dermatology*, 57(1), 20-27. https://doi.org/10.1111/ijd.13871