



RED SCROTUM SYNDROME

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Red Scrotum Syndrome (RSS) is an uncommon disease that presents as sharply defined redness of the anterior scrotum. Patients will have a burning sensation, tenderness, and pruritus. It can be confused with **tinea** cruris, but the absence of scaling should help with the diagnosis. RSS occurs mostly in Caucasian males over 50 years old.

The cause is unknown, but proposed theories include nerve inflammation, **erythromelalgia**, and **rosacea**. Neurogenic inflammation is plausible because the primary symptom of RSS is a burning sensation and some cases have shown to respond to gabapentin and pregabalin. Erythromelalgia is caused by large and small-fiber neuropathy and increased blood flow to the affected area. Symptoms most commonly involve the extremities, but perhaps RSS is a localized erythromelalgia on the scrotum. About half of RSS reports in the literature had a history of corticosteroid use, which can lead to rebound dilation of the blood vessels and a rosacea-like dermatosis. In one study, 4 out of 7 biopsied patients showed histological findings similar to erythematotelangiectatic rosacea.

The cause of RSS is up for debate and so is the best treatment. It is unlikely that corticosteroid use is the sole cause of RSS, but patients should first discontinue using any topical steroids. Localized vasodilation is common among the theories of RSS pathology, which is why Beta-blockers may be an efficient treatment option. Two cases reported symptom relief with treatment of carvedilol 6.25mg once daily. In one case, topical timolol provided rapid improvement within 2 weeks. Gabapentin and pregabalin may be used to target the hypothesized neurogenic association of RSS. To date, 6 cases have reported improvement with pregabalin. The most common treatment and perhaps the least understood is doxycycline, which can be used as monotherapy or in combination with topical calcineurin inhibitors **tacrolimus** or **pimecrolimus**. Many of the available studies have shown promising results with this combination.

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