



**In a patient with glaucoma who has unexplained hair loss,
stop topical beta-blocker treatment**

The Science behind the Tip

Beta adrenergic receptor blocking eye drops are often used to reduce the intraocular pressure. Because of absorption through the nasal mucosa, systemic beta-blockade may occur, leading to side effects that include bradycardia, hypotension and bronchospasm. Less commonly, sleep disorders, hallucinations, confusion, depression, fatigue, dizziness and decreased libido can follow treatment^{1,2}.

Alopecia is a rare, pharmacologically unpredictable adverse reaction to topical beta-blockers and can occur at any age. This has been reported secondary to the use of timolol, betaxolol and levobunolol³. Hair loss starts from 1 to 24 months after commencing treatment, but hair growth normally returns to normal 4-8 months after stopping the beta-blocker³. The cause of this side effect is not known.

References

- 1) Lewis RV, Lofthouse C Adverse reactions with beta-adrenoceptor blocking drugs. *Drug Saf* 1993; 9: 272-9.
- 2) Lydtin H. Side effects and contraindications of beta-receptor blocking agents. *Klin Wochenschr* 1977 1:55: 415-22.
- 3) Fraunfelder FT Meyer SM Menacker SJ Alopecia possibly secondary to topical ophthalmic beta-blockers. *JAMA* 1990, 16; 263: 1493-94