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## Obstructive Sleep Apnoea and Glaucoma

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**O**bststructive Sleep Apnoea (OSA) is primarily a disorder of the upper airway during sleep, which occurs in 2% in women and 4% in men. It is a far reaching condition which impacts on many body systems. We looked into the link between OSA and ophthalmic conditions and the literature hints at a connection between OSA and many ophthalmic conditions. Some mechanisms by which OSA is postulated to affect the eye: Intermittent hypoxia, Hypertension (During sleep, Daytime), Oxidative stress and Endothelial dysfunction. Regarding the link between OSA and glaucoma there does not appear to be a clear cut link and as such it is unclear as to whether CPAP works in glaucoma patients, although small studies do suggest potential to improve IOP with CPAP. The case of a 74M, with a BMI 40.4 and multiple co-morbidities including OSA was examined. He was diagnosed with OSA >20 years ago and has been on CPAP since then. In 2016 he had an ESS of 10 and reported poor compliance with the CPAP due to discomfort. Results of a sleep study showed multiple episodes of apnoea with corresponding drops in saturation (mean 90.8%, lowest 80%). He was referred to ophthalmology for raised IOPs (23T23), at which time he also displayed slight optic disc cupping, had full colour vision and open irido-corneal angles. He was started on latanoprost. On subsequent visits his IOPs appeared well controlled and was then seen and discharged back to the GP's care by the respiratory team. After a year, he was seen again by the ophthalmologists and his IOPs were 24T23. However, due to various co-morbidities, he was unable to be commenced on B-blocker or trusopt. The patient has now been listed for a laser trabeculoplasty to lower IOP and will be called in to discuss his OSA and CPAP. The correlation between OSA and glaucoma seems complex and poorly understood and more studies are required to ascertain if there is a causal link or whether they share common pathological pathways.

### Biography

Rohit Sharma is a renowned Consultant Ophthalmic Surgeon University Hospitals Derby and Burton, UK gaining his MBBS MS MRCS(Edinburgh) FRCOphth London. Rohit Sharma is working in Department of Ophthalmology, University Hospitals Derby and Burton, UK. He publishes many articles in reputed journals.