
Vocal Nodules Information:

Hoarseness in children is most commonly caused by nodules or polyps, usually as a result of vocal abuse. In children, about 10% of these cases are associated with submucosal cleft palate where the palate is not closing properly and air escapes through the nose while the child is talking. Vocal nodules occur most commonly in boys and in women. The child commonly tends to shout or talk in unusual voices, such as imitating cartoon or fantasy characters or makes continual truck noises. This type of vocal abuse commonly results in vocal nodules or polyps. In these cases, if there is no history of stridor and an ENT examination does not suggest other medical compromise, it is appropriate to start speech hygiene and refer the child for a 6-8-week trial of speech therapy.

Symptoms

Initial onset is associated with an upper respiratory infection or acute laryngitis in many cases
Increased breathiness, air escape roughness and harshness
Loss ability to sing high notes softly
Delayed phonatory onset
Reduced vocal endurance
A sensation of increased effort singing
Need for longer warm ups.
More day to day variation in the voice

Diagnosis:

Investigations by an ENT specialist may include nasendoscopy, videostroboscopy or microlaryngoscopy.

Nasendoscopy is where a flexible fibre-optic laryngoscope is passed through the nose to view the voice box and vocal cords under local anaesthetic. It is generally performed in the specialist's rooms. About half of four-year-olds will co-operate with this procedure and it is well tolerated by children from about five years. It is particularly useful in identifying associated disorders, such as supraglottic squeeze, because the child can co-operate in making certain sounds that show laryngeal movements and speech therapy can be tailored accordingly.

Video stroboscopy is where a flashing light and a camera are used to look at the movement patterns of the vocal cords.

Microlaryngoscopy is performed under general anaesthetic on younger children and where a better view is required in older children.

Treatment:

In the past vocal nodules were routinely treated surgically and although this results in immediate improvement of symptoms, it scars the vocal cords and repeated surgical removal may lead to permanent hoarseness. The natural history of paediatric vocal nodules is eventual resolution, usually by the end of puberty when the vocal fold has lengthened and a lower pitched voice reduces stress on the vibrating edges of the fold. Speech therapy will hasten resolution of the nodules and prevent them increasing in size.

Medical management focuses on ensuring good laryngeal lubrication through general hydration, and, when appropriate, on managing the (usually secondary) contributions of allergy and night time reflux of stomach acid into the larynx.

Behavioral management: Speech (voice) therapy should play a primary role initially.

Surgical Management:

Surgical removal is an option if nodules persist (even when they have regressed and are quite small), and the voice remains impaired, after an adequate trial of therapy (generally a minimum of 3 months, usually much longer). Typically, the patient is asked not to speak for 4 days after the operation.

