

CLINICAL ANATOMY AND PHYSIOLOGY The pharynx

CLINICAL ANATOMY AND PHYSIOLOGY The pharynx

The pharynx is a fibromuscular tube forming the upper part of the respiratory and digestive passages. It extends from the base of the skull to the level of the sixth cervical vertebra at the lower border of the cricoid cartilage, where it becomes continuous with the oesophagus. It is divided into three parts: the nasopharynx, oropharynx and hypopharynx (Figure 52.1 Nasopharynx

The nasopharynx lies anterior to the first cervical vertebra. The adenoids, which constitute the superior component of Waldeyer's ring, are situated at the junction of the roof and posterior wall of the nasopharynx. Waldeyer's ring is a ring of lymphoid tissue comprising, in addition to the adenoids, the palatine and lingual tonsils of the oropharynx. It is situated at the entry to the air and food passages and is constantly exposed to new inspired or ingested antigenic stimuli. Accordingly , it is an important part of the mucosa-associated lymphoid tissue (MALT), which processes antigens and presents them to T-helper cells and B cells (Figure 52.2), thereby facilitating a first-line immune response mechanism, which is particularly important in childhood. The tissue of Waldeyer's ring undergoes physiological hypertrophy during early childhood as the child is exposed to increasing amounts of antigenic stimuli, and there is often a similar hypertrophy of the cervical lymph nodes. The Eustachian tubes, leading from the middle ear cleft, open into the posterosuperior aspect of the lateral wall. Dorsal and superior to the openings, bounded anteriorly by a ridge Heinrich Wilhelm Gottfried Waldeyer-Hartz , 1836–1921, Professor of Pathological Anatomy , Berlin, Germany . Bartolomeo Eustachio (Eustachius) , 1513–1574, appointed physician to the Pope in 1547, and Professor of Anatomy , Rome, Italy , in 1549. Johann Christian Rosenmüller , 1771–1820, Professor of Anatomy and Surgery , Leipzig, Germany .). formed by the salpingopharyngeus muscle, are the fossae of Rosenmüller, a common site for the development of naso - pharyngeal carcinoma (Figure 52.3). Oropharynx - This is bounded superiorly by the soft palate, inferiorly by the lingual surface of the epiglottis and anteriorly by the anterior faucial pillars and the circumvallate papillae of the tongue. The palatine tonsils are situated in the lateral wall between the anterior and posterior pillars of the fauces. The lateral wall, and in particular the tonsil, takes its blood supply from the facial artery , which may be closely related to the lower pole,

The aetiology, natural history and management of • squamous cell carcinoma of the upper aerodigestive tract Nasopharynx Oropharynx Hypopharynx Figure 52.1 The component parts of the pharynx.

and laterally a plexus of paratonsillar veins, which may be the source of significant venous bleeding following tonsillectomy .

Adenoids Lymphoid tissue around the Tonsillar Eustachian tube lymph nodes Glands of the jugular chain Faucial tonsils Lingual tonsil Submaxillary lymph nodes Submental lymph nodes Figure 52.2 Waldeyer's ring. Figure 52.3 Endoscopic view of the left nasopharynx. ET, Eustachian tube; FOR, fossa of Rosenmüller.

CLINICAL ANATOMY AND PHYSIOLOGY The pharynx

The pharynx is a fibromuscular tube forming the upper part of the respiratory and digestive passages. It extends from the base of the skull to the level of the sixth cervical vertebra at the lower border of the cricoid cartilage, where it becomes continuous with the oesophagus. It is divided into three parts: the nasopharynx, oropharynx and hypopharynx (Figure 52.1 Nasopharynx The nasopharynx lies anterior to the first cervical vertebra. The adenoids, which constitute the superior component of Waldeyer's ring, are situated at the junction of the roof and posterior wall of the nasopharynx. Waldeyer's ring is a ring of lymphoid tissue comprising, in addition to the adenoids, the palatine and lingual tonsils of the oropharynx. It is situated at the entry to the air and food passages and is constantly exposed to new inspired or ingested antigenic stimuli. Accordingly , it is an important part of the mucosa-associated lymphoid tissue (MALT), which processes antigens and presents them to T-helper cells and B cells (Figure 52.2), thereby facilitating a first-line immune response mechanism, which is particularly important in childhood. The tissue of Waldeyer's ring undergoes physiological hypertrophy during early childhood as the child is exposed to increasing amounts of antigenic stimuli, and there is often a similar hypertrophy of the cervical lymph nodes. The Eustachian tubes, leading from the middle ear cleft, open into the posterosuperior aspect of the lateral wall. Dorsal and superior to the openings, bounded anteriorly by a ridge Heinrich Wilhelm Gottfried Waldeyer-Hartz , 1836-1921, Professor of Pathological Anatomy , Berlin, Germany . Bartolomeo Eustachio (Eustachius) , 1513-1574, appointed physician to the Pope in 1547, and Professor of Anatomy , Rome, Italy , in 1549. Johann Christian Rosenmüller , 1771-1820, Professor of Anatomy and Surgery , Leipzig, Germany .). formed by the salpingopharyngeus muscle, are the fossae of Rosenmüller, a common site for the development of naso - pharyngeal carcinoma (Figure 52.3). Oropharynx - This is bounded superiorly by the soft palate, inferiorly by the lingual surface of the epiglottis and anteriorly by the anterior faucial pillars and the circumvallate papillae of the tongue. The palatine tonsils are situated in the lateral wall between the anterior and posterior pillars of the fauces. The lateral wall, and in particular the tonsil, takes its blood supply from the facial artery , which may be closely related to the lower pole,

The aetiology, natural history and management of • squamous cell carcinoma of the upper aerodigestive tract Nasopharynx Oropharynx Hypopharynx Figure 52.1 The component parts of the pharynx.

and laterally a plexus of paratonsillar veins, which may be the source of significant venous bleeding following tonsillectomy .

Adenoids Lymphoid tissue around the Tonsillar Eustachian tube lymph nodes Glands of the jugular chain Faucial tonsils Lingual tonsil Submaxillary lymph nodes Submental lymph nodes Figure 52.2 Waldeyer's ring. Figure 52.3 Endoscopic view of the left nasopharynx. ET, Eustachian tube; FOR, fossa of Rosenmüller.

