

OSCE IN ENT PRACTICE



Editors:
Prasad Deshmukh
Farhat Khan

Bentham Books

OSCE in ENT Practice

Edited by

Prasad Deshmukh

*Department of ENT, Jawaharlal Nehru Medical College,
Datta Meghe Institute of Higher Education & Research,
Wardha- 442004, India*

&

Farhat Khan

*Department of ENT, Jawaharlal Nehru Medical College,
Datta Meghe Institute of Higher Education & Research,
Wardha- 442004, India*

OSCE in ENT Practice

Editors: Prasad Deshmukh and Farhat Khan

ISBN (Online): 979-8-89881-291-1

ISBN (Print): 979-8-89881-292-8

ISBN (Paperback): 979-8-89881-293-5

© 2026, Bentham Books imprint.

Published by Bentham Science Publishers Pte. Ltd. Singapore, in collaboration with Eureka Conferences, USA. All Rights Reserved

First published in 2026.

BENTHAM SCIENCE PUBLISHERS LTD.

End User License Agreement (for non-institutional, personal use)

This is an agreement between you and Bentham Science Publishers Ltd. Please read this License Agreement carefully before using the ebook/echapter/ejournal ("**Work**"). Your use of the Work constitutes your agreement to the terms and conditions set forth in this License Agreement. If you do not agree to these terms and conditions then you should not use the Work.

Bentham Science Publishers agrees to grant you a non-exclusive, non-transferable limited license to use the Work subject to and in accordance with the following terms and conditions. This License Agreement is for non-library, personal use only. For a library / institutional / multi user license in respect of the Work, please contact: permission@benthamscience.org.

Usage Rules:

1. All rights reserved: The Work is the subject of copyright and Bentham Science Publishers either owns the Work (and the copyright in it) or is licensed to distribute the Work. You shall not copy, reproduce, modify, remove, delete, augment, add to, publish, transmit, sell, resell, create derivative works from, or in any way exploit the Work or make the Work available for others to do any of the same, in any form or by any means, in whole or in part, in each case without the prior written permission of Bentham Science Publishers, unless stated otherwise in this License Agreement.
2. You may download a copy of the Work on one occasion to one personal computer (including tablet, laptop, desktop, or other such devices). You may make one back-up copy of the Work to avoid losing it.
3. The unauthorised use or distribution of copyrighted or other proprietary content is illegal and could subject you to liability for substantial money damages. You will be liable for any damage resulting from your misuse of the Work or any violation of this License Agreement, including any infringement by you of copyrights or proprietary rights.

Disclaimer:

Bentham Science Publishers does not guarantee that the information in the Work is error-free, or warrant that it will meet your requirements or that access to the Work will be uninterrupted or error-free. The Work is provided "as is" without warranty of any kind, either express or implied or statutory, including, without limitation, implied warranties of merchantability and fitness for a particular purpose. The entire risk as to the results and performance of the Work is assumed by you. No responsibility is assumed by Bentham Science Publishers, its staff, editors and/or authors for any injury and/or damage to persons or property as a matter of products liability, negligence or otherwise, or from any use or operation of any methods, products instruction, advertisements or ideas contained in the Work.

Limitation of Liability:

In no event will Bentham Science Publishers, its staff, editors and/or authors, be liable for any damages, including, without limitation, special, incidental and/or consequential damages and/or damages for lost data and/or profits arising out of (whether directly or indirectly) the use or inability to use the Work. The entire liability of Bentham Science Publishers shall be limited to the amount actually paid by you for the Work.

General:

1. Any dispute or claim arising out of or in connection with this License Agreement or the Work (including non-contractual disputes or claims) will be governed by and construed in accordance with the laws of Singapore. Each party agrees that the courts of the state of Singapore shall have exclusive jurisdiction to settle any dispute or claim arising out of or in connection with this License Agreement or the Work (including non-contractual disputes or claims).
2. Your rights under this License Agreement will automatically terminate without notice and without the

need for a court order if at any point you breach any terms of this License Agreement. In no event will any delay or failure by Bentham Science Publishers in enforcing your compliance with this License Agreement constitute a waiver of any of its rights.

3. You acknowledge that you have read this License Agreement, and agree to be bound by its terms and conditions. To the extent that any other terms and conditions presented on any website of Bentham Science Publishers conflict with, or are inconsistent with, the terms and conditions set out in this License Agreement, you acknowledge that the terms and conditions set out in this License Agreement shall prevail.

Bentham Science Publishers Pte. Ltd.

No. 9 Raffles Place

Office No. 26-01

Singapore 048619

Singapore

Email: subscriptions@benthamscience.net



CONTENTS

FOREWORD	i
PREFACE	ii
ABSTRACT/ PROPOSAL SUMMARY	iv
BACKGROUND AND PURPOSE	v
LIST OF CONTRIBUTORS	vi
CHAPTER 1 OSCE - EAR	1
<i>Prasad Deshmukh and Farhat Khan</i>	
SKILL STATION- EXAMINATION OF THE PINNA	1
Introduction	1
Expected from Students	1
Clinical Applications	2
Method	2
Notes	5
SKILL STATION- EXAMINATION OF THE EXTERNAL AUDITORY CANAL	5
Introduction	5
Expected from Students	5
Clinical Applications	6
Method	6
Notes	8
SKILL STATION- EXAMINATION OF THE TYMPANIC MEMBRANE	8
Introduction	8
Expected from Students	8
Clinical Applications	9
Method	9
Notes	10
SKILL STATION- TUNING FORK TEST (RINNE TEST)	10
Introduction	10
Expected from Students	11
Clinical Applications	11
Method	11
Procedure	12
Response	13
Positive Rinne Test	14
Negative Rinne Test	14
False Negative Rinne Test	14
SKILL STATION- TUNING FORK TEST (WEBER TEST)	15
Introduction	15
Knowledge of the following is expected from the students	15
Clinical Applications	16
Method	16
<i>Procedure</i>	16
<i>Response</i>	16
Notes	17
SKILL STATION- TUNING FORK TEST (ABSOLUTE BONE CONDUCTION)	17
Introduction	17
Expected from Students	18
Clinical Applications	18

Method	19
<i>Procedure</i>	19
<i>Response</i>	20
Notes	20
SKILL STATION- EXAMINATION OF NYSTAGMUS	21
Introduction	21
Knowledge of the following is expected from the students	22
Clinical Applications	22
Method	22
Notes	23
SKILL STATION- FISTULA TEST	25
Introduction	25
Knowledge of the following is expected from the students	25
Clinical Applications	26
Method	26
Notes	26
SKILL STATION- EXAMINATION OF THE FACIAL NERVE	27
Introduction	27
Knowledge of the following is expected from the students	27
Clinical Applications	28
Method	28
Notes	30
CONCLUSION	32
REFERENCES	32
CHAPTER 2 OSCE – NOSE	35
<i>Shraddha Jain, Farhat Khan and Aditya Ranjan</i>	
SKILL STATION- EXAMINATION OF THE EXTERNAL NOSE	36
Introduction	36
Knowledge of the following is expected from the students	36
Clinical Application	37
Method	37
Notes	38
SKILL STATION- EXAMINATION OF THE NASAL CAVITY AND ANTERIOR RHINOSCOPY	38
Introduction	38
Knowledge of the following is expected from the students	39
Clinical Application	39
Method	40
<i>Examination of the nasal vestibule and columella</i>	40
<i>Examination of the nasal cavity or anterior rhinoscopy</i>	40
Notes	43
SKILL STATION- PROBE TEST	43
Introduction	43
Knowledge of the following is expected from the students	43
Clinical applications	44
Method	44
Notes	45
SKILL STATION- POSTERIOR RHINOSCOPY EXAMINATION	46
Introduction	46
Knowledge of the following is expected from the students	46

Clinical Application	47
Method	47
<i>Procedure</i>	47
Notes	49
SKILL STATION: NASAL PATENCY TESTS	49
Introduction	49
Knowledge of the following is expected from the students	50
Clinical Applications	50
Method	50
<i>Cottle's Test</i>	50
<i>Cold Spatula Test</i>	51
<i>Cotton Wool Test</i>	52
Notes	52
SKILL STATION: PARANASAL SINUS EXAMINATION	53
Introduction	53
Knowledge of the Following is Expected from the Students	53
Clinical Applications	54
Method	54
<i>Frontal Sinuses</i>	54
<i>Maxillary Sinuses</i>	55
<i>Ethmoid Sinuses</i>	55
Notes	56
CONCLUSION	56
REFERENCES	56
CHAPTER 3 OSCE – ORAL CAVITY AND OROPHARYNX	59
<i>Sagar Gaurkar and Prasad Deshmukh</i>	
SKILL STATION- EXAMINATION OF THE ORAL CAVITY	59
Introduction	59
Knowledge of the following is expected from the students	60
Clinical Applications	60
Method	60
<i>Examination of the Oral Mucosa</i>	61
<i>Examination of the Teeth and Gums</i>	61
<i>Examination of the Tongue</i>	61
<i>Examination of the Floor of the Mouth</i>	62
<i>Inspection of the Palate</i>	62
Notes	63
SKILL STATION- OROPHARYNGEAL EXAMINATION	63
Introduction	63
Knowledge of the following is expected from the students	64
Clinical Applications	64
Method	64
<i>Tonsils and Pillars</i>	65
<i>Soft Palate</i>	66
<i>Posterior Pharyngeal Wall</i>	66
Notes	66
CONCLUSION	67
REFERENCES	67
CHAPTER 4 OSCE – LARYNX AND NECK	69
<i>Chandraveer Singh and Prasad Deshmukh</i>	

SKILL STATION- EXTERNAL EXAMINATION OF THE LARYNX	69
Introduction	69
Knowledge of the following is expected from the students	70
Clinical Applications	70
Method	70
Notes	72
SKILL STATION- INDIRECT LARYNGOSCOPY	73
Introduction	73
Knowledge of the following is expected from the students	74
Clinical Applications	74
Method	74
<i>Procedure</i>	75
<i>Structures Seen on Indirect Laryngoscopy</i>	76
Notes	76
<i>Indications for Direct Laryngoscopy</i>	77
<i>Advantages of Direct Laryngoscopy over Indirect Laryngoscopy</i>	78
SKILL STATION- EXAMINATION OF CERVICAL LYMPH NODES	78
Introduction	78
Knowledge of the following is expected from the students	79
Clinical Applications	79
Method	80
Notes	81
CONCLUSION	82
REFERENCES	82
CHAPTER 5 OSCE - RESPONSE STATIONS	84
<i>Prasad Deshmukh and Farhat Khan</i>	
INTRODUCTION	84
Answers	85
Notes	85
Answers	87
Types of Nasal Bone Fractures -	87
3. Early Management	88
Late Management	88
<i>Notes</i>	88
<i>Answers</i>	89
<i>Notes</i>	90
<i>Answers</i>	90
<i>Notes</i>	91
<i>Answers</i>	92
Notes	93
<i>Answers</i>	94
Notes	95
<i>Answers</i>	96
Notes	97
<i>Answers</i>	97
Notes	99
<i>Answers</i>	99
Notes	101
<i>Answers</i>	102
Notes	103

Topodiagnostic Tests	103
Prognostic Tests	103
<i>Answers</i>	104
Notes	105
Treatment Options	105
<i>Answers</i>	106
Notes:	107
<i>Answers</i>	108
<i>Anterior Triangle</i>	110
<i>Posterior Triangle</i>	111
CONCLUSION	111
REFERENCES	112
CHAPTER 6 CLINICAL PHOTOGRAPHS AND INSTRUMENTS	116
<i>Prasad Deshmukh and Farhat Khan</i>	
INTRODUCTION	116
CONCLUSION	186
CONSENT	186
REFERENCES	186
SUBJECT INDEX	192

FOREWORD

The Objective Structured Clinical Examination (OSCE) in ENT Practice has become an essential component undergraduate and postgraduate medical training, especially in surgical specialties like Otorhinolaryngology. It not only evaluates clinical knowledge but also assesses communication, problem-solving, procedural skills, and the ability to apply concepts in real-world scenarios. As ENT practice continues to evolve with advancing technologies and evidence-based protocols, the need for structured, concise, and clinically relevant OSCE preparation material has become more important than ever.

This book has been written by Dr. (Prof.) Shraddha Jain, Dr. (Prof. & HOD) Prasad T. Deshmukh, Dr. (Prof.) Sagar Gaurkar, Dr. Chandraveer Singh and Dr. Farhat Khan, been developed to bridge that gap-offering learners a clear, systematic, and practical approach to OSCE stations in ENT. Each chapter aims to simplify complex clinical situations into easily digestible formats, enabling students to feel confident during examinations and in clinical practice. With focused checklists, key points, flowcharts, and case-based discussions, the book serves as a reliable companion for trainees preparing for examinations as well as for clinicians wishing to refresh essential skills.

I commend the author for creating a resource that is both comprehensive and user-friendly. I am confident that this book will significantly enhance the preparedness of students and contribute to better clinical understanding and patient care in the field of ENT.

Arunabh Chakravarti
Lady Hardinge Medical College
& Associated Hospitals;
Ministry of Health & Family
Welfare Govt. of India
New Delhi-110001
India

Preface

The discipline of Otorhinolaryngology demands a rare integration of cognitive precision, psychomotor skill, and refined clinical judgment. Unlike many other specialties, ENT operates within anatomically compact yet functionally complex regions that house three special senses - hearing, balance, and smell along with critical components of speech, swallowing, and airway protection. The mastery of this domain therefore requires not only theoretical understanding but also structured clinical competence. In this context, the Objective Structured Clinical Examination (OSCE) has emerged as one of the most robust and reliable tools for assessing clinical performance in a standardized, transparent, and reproducible manner.

The OSCE represents a paradigm shift from traditional long-case and short-case examinations toward competency-based assessment. It evaluates not merely what a learner knows, but how effectively that knowledge is applied in real-time clinical scenarios. Communication skills, professional behaviour, systematic examination technique, interpretation of findings, procedural dexterity, and clinical reasoning are all assessed in a structured environment. In surgical specialties such as ENT, where examination technique directly influences diagnosis and management, this model of evaluation becomes especially relevant.

With the growing emphasis on competency-based medical education (CBME) across undergraduate and postgraduate curricula, OSCE has assumed a central role in formative and summative assessments. However, many students encounter difficulty in translating textbook knowledge into structured performance at OSCE stations. A recurring challenge observed during examinations is the lack of systematic approach, incomplete checklists, improper positioning, and inadequate interpretation of clinical signs. This book was conceived to bridge that gap.

OSCE in ENT Practice has been designed as a structured roadmap for learners navigating the clinical examination landscape of Otorhinolaryngology. The content is organized into skill stations that reflect real OSCE formats. Each station integrates four critical domains: cognitive understanding, psychomotor execution, affective components, and communication skills. The structured checklists, clinical applications, methodical steps, and interpretation notes are intended to simulate the actual assessment environment while reinforcing sound clinical habits.

The book begins with OSCE stations focused on the ear, highlighting essential skills such as the examination of the pinna, external auditory canal, tympanic membrane, and tuning fork tests. Subsequent chapters systematically examine the nose, paranasal sinuses, oral cavity, oropharynx, larynx, and neck. Each skill station focuses on proper positioning, adequate illumination, anatomical orientation, and the interpretation of signs. A distinctive feature of this book is the inclusion of response stations designed to assess analytical thinking, radiographic interpretation, structured answering, and applied clinical reasoning. Clinical photographs and instruments are incorporated to enhance visual recognition skills, which are indispensable in ENT practice.

Throughout this book, emphasis has been placed on professionalism and patient-centred conduct. Each checklist incorporates behavioural components such as greeting the patient, introducing oneself, ensuring comfort, explaining procedures, and concluding respectfully. In an era where communication skills and ethical practice are integral to medical competence, these elements are as important as technical precision. The methodology described in this text

encourages systematic examination. Repetition of structured steps fosters muscle memory and cognitive clarity. When consistently practiced, this approach not only improves examination scores but also enhances real-world clinical efficiency.

While modern diagnostics such as endoscopy, imaging, and audiometric testing have expanded diagnostic capabilities, the foundational clinical examination remains indispensable. A clinician who understands and performs basic bedside assessments with clarity is better equipped to interpret advanced investigations meaningfully.

This text aims to serve undergraduate students preparing for university examinations, postgraduate trainees refining clinical skills, educators structuring OSCE stations, and clinicians revisiting core examination principles. The OSCE embodies the principles of objectivity, standardization, reproducibility, and competency-based evaluation, and represents a gold standard in structured clinical assessment.

It is our sincere hope that this book functions as more than an examination guide. Through repeated practice of the structured approaches described herein, learners can cultivate clarity, confidence, and competence. Ultimately, the true success of this book will be measured not by examination scores alone, but by the quality of patient care delivered by those who learn from it.

Prasad Deshmukh

Department of ENT, Jawaharlal Nehru Medical College
Datta Meghe Institute of Higher Education & Research
Wardha- 442004, India

&

Farhat Khan

Department of ENT, Jawaharlal Nehru Medical College
Datta Meghe Institute of Higher Education & Research
Wardha- 442004, India

ABSTRACT/ PROPOSAL SUMMARY

An objectively structured clinical examination (OSCE) is designed to observe clinical skills, acumen, performance, and competence. In ENT, skills like communication, clinical examination, medical procedures, radiographic image evaluation, and interpretation of results are assessed. It is a hands-on approach to learning that keeps examinees involved and engrossed, allowing them to understand the key factors that decide the medical decision-making process.

BACKGROUND AND PURPOSE

To be a complete and consummate clinician, cognitive, psychomotor, and affective skills, and their optimal and healthy integration, are of paramount importance. Given the intricate and complex anatomy of the ENT region, which encompasses as many as three sense organs, the importance of careful and complete clinical examination cannot be overstated. A guide and a roadmap in this direction will go a long way toward becoming an accomplished clinician who can tackle various medical challenges.

List of Contributors

Aditya Ranjan	Department of ENT, Jawaharlal Nehru Medical College, Datta Meghe Institute of Higher Education & Research, Wardha- 442004, India
Chandraveer Singh	Department of ENT, Jawaharlal Nehru Medical College, Datta Meghe Institute of Higher Education & Research, Wardha- 442004, India
Farhat Khan	Department of ENT, Jawaharlal Nehru Medical College, Datta Meghe Institute of Higher Education & Research, Wardha- 442004, India
Prasad Deshmukh	Department of ENT, Jawaharlal Nehru Medical College, Datta Meghe Institute of Higher Education & Research, Wardha- 442004, India
Shraddha Jain	Department of ENT, Jawaharlal Nehru Medical College, Datta Meghe Institute of Higher Education & Research, Wardha- 442004, India
Sagar Gaurkar	Department of ENT, Jawaharlal Nehru Medical College, Datta Meghe Institute of Higher Education & Research, Wardha- 442004, India

CHAPTER 1

OSCE - EAR**Prasad Deshmukh¹ and Farhat Khan^{1,*}**

¹ Department of ENT, Jawaharlal Nehru Medical College, Datta Meghe Institute of Higher Education & Research, Wardha- 442004, India

Abstract: Ear examination is done to screen for ear problems, such as hearing loss, earache, discharge, lumps, or foreign bodies in the ear. An ear examination can detect diseases and abnormalities in the ear canal, tympanic membrane, and the middle ear. These can include an infection, excessive and impacted earwax, or an object like a bean, a bead, or a battery.

Keywords: Ear, Otoscope, Tympanic membrane, Tuning fork.

SKILL STATION- EXAMINATION OF THE PINNA

Type of OSCE station: Procedural station

Domain: Affective, Psychomotor, Cognitive, Communication

Introduction

The examination of the pinna is carried out to facilitate diagnosis (Table 1). It is very important that the students acquire the correct and proper method of examination while perceiving various findings and eliciting relevant clinical signs.

Expected from Students

1. Systematic examination of the external ear
2. Name of different parts of the pinna
3. Eliciting tragal, mastoid tenderness and interpretation
4. Knowing congenital deformities of the pinna
5. Clinical applications

* **Corresponding author Farhat Khan:** Department of ENT, Jawaharlal Nehru Medical College, Datta Meghe Institute of Higher Education & Research, Wardha- 442004, India; E-Mail: farhatqk@gmail.com

Table 1. Station: Examination of the pinna.

Sr. No.	Checklist	Marks
1.	Use of the local language to extract history	1
2.	Asking leading questions to elicit positive and negative History	1
3.	Proper use of the head mirror and Bull's eye lamp	1
4.	Systematic examination of the external ear	1
5.	Examination of the preauricular area	2
6.	Eliciting tragal, mastoid tenderness in the correct manner	2
	Assessment of Professional Behaviour	-
7.	Addressed the subject appropriately	1
8.	Introduced himself/herself by name.	1
9.	Made the subject feel comfortable and at ease	1
10.	Informed the subject regarding the completion of the procedure and thanked the subject	1

Clinical Applications

1. Recognition of normal variation and abnormalities of the pinna, like microtia, anotia, *etc.*
2. Anatomical knowledge for endaural incisions given for ear surgery
3. Graft materials harvested from the pinna
4. Interpretations of various signs like tragal, mastoid tenderness and its interpretation

Method

Always greet the patient and introduce yourself before taking a brief history of the symptoms. The student should be seated facing the patient with their knees together and positioned comfortably to one side of the patient's legs. The patient is asked to look sideways, keeping their head in a neutral position, while the student focuses the light on the external ear and pinna.

1. The pinna is examined by inspection and palpation. A detailed examination of the medial and lateral surfaces should be done. The pinna, retroauricular groove, mastoid region, and preauricular region are thoroughly examined to detect any congenital anomaly or acquired lesion, including abnormalities of the external ear.
2. Tragal tenderness: Gently press the tragus with the index finger. Observe for the pain.

3. Mastoid tenderness: Mastoid tenderness is elicited over the mastoid region by gently pressing over the cymba concha, the body, and the tip of the mastoid. Cymba conchae corresponds to MacEwan's triangle, which in turn corresponds to the mastoid antrum, the largest and most constant air cell in the mastoid air cell system. Grossly, it can be tested with the 3-finger test (Fig. 1).

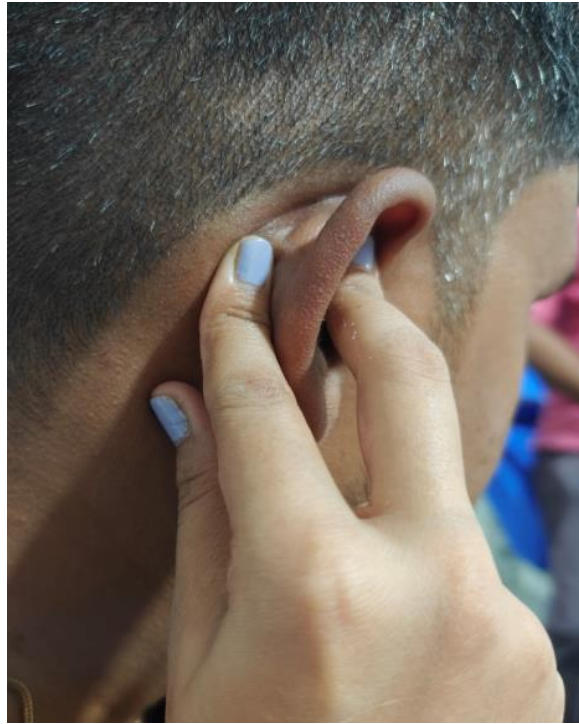


Fig. (1). 3-finger test to elicit mastoid tenderness.

The first point is the cymba concha, as already described. The second point is the tip of the mastoid, and the third point is in between these two points (Fig. 2). Here, the index finger is applied over the posterior border of the mastoid process. Tenderness in this area indicates mastoiditis. The middle finger is applied over the cymba concha (Fig. 3). Tenderness indicates inflammation in the mastoid antrum. The thumb is used to apply pressure over the mastoid process. Tenderness indicates mastoid emissary vein thrombophlebitis.

CHAPTER 2

OSCE – NOSE**Shraddha Jain¹, Farhat Khan^{1,*} and Aditya Ranjan¹**

¹ *Department of ENT, Jawaharlal Nehru Medical College, Datta Meghe Institute of Higher Education & Research, Wardha- 442004, India*

Abstract: Nose examination includes inspection of external and internal structures. Inspection of the nasal passage through a speculum with a headlight or head mirror and a lamp allows only examination of the vestibule, anterior portion of the septum, and the inferior and middle turbinates. The nasopharynx can be assessed clinically by posterior rhinoscopy examination using a posterior rhinoscopy mirror. For a more detailed evaluation, diagnostic nasal endoscopy is performed. This procedure provides an in-depth inspection of the nasal cavity, including the nasal septum, inferior, middle, and superior turbinates, as well as the drainage pathways of the paranasal sinuses. It also enables the assessment of the nasopharynx, allowing the identification of abnormalities such as polyps, tumors, adenoid hypertrophy, or infections.

Additionally, nasal patency tests are utilized to evaluate the functional airflow through the nasal passages. Subjective methods, such as the cold spatula test and cotton wool test, facilitate the identification of airflow differences between nostrils by observing fogging on a cold spatula or the movement of cotton wool during respiration. Cottle's test, a simple maneuver used to assess improvement in breathing upon traction of the cheek, implies an obstruction at the nasal valve level. Objective tests, like rhinomanometry and acoustic rhinometry, provide quantitative measurements of nasal airway resistance and geometry. These tests are essential in identifying obstructions, such as those caused by septal deviations, turbinate hypertrophy, or nasal valve collapse. This comprehensive approach is particularly valuable in diagnosing and managing nasal and paranasal sinus diseases.

Keywords: Cold spatula, Nasal endoscopy, Nose, Thudicum nasal speculum.

* **Corresponding author Farhat Khan:** Department of ENT, Jawaharlal Nehru Medical College, Datta Meghe Institute of Higher Education & Research, Wardha- 442004, India. E-mail: farhatqk@gmail.com

SKILL STATION- EXAMINATION OF THE EXTERNAL NOSE

Type of OSCE station: Procedural station

Domain: Affective, Psycho-motor, Cognitive, and Communication

Introduction

The external nose is the most projecting part of the face (Table 1). In addition to its vital functional role, it significantly contributes to facial aesthetics. Because of its prominence, it is also one of the most commonly injured facial structures. All the other groups of diseases, like congenital, inflammatory, traumatic, and neoplastic, can affect the external nose, leading to functional as well as cosmetic concerns for the patient [1]. The complete examination of the external nose is important because it sometimes reflects the disease process in the nasal cavity [2]. Eliciting and interpreting various findings will aid in arriving at a correct diagnosis.

Knowledge of the following is expected from the students

1. Normal anatomy of the external nose
2. Types of deformities of the external nose
3. Examination of the external nose
4. Diagnosing external nasal deformities and diseases
5. Relevant investigations that may be required

Table 1. Station: Examination of the external nose.

Sr. No.	Checklist	Mark
1.	Use of local language to extract history	1
2.	Ask leading questions to elicit positive and negative history	1
3.	Proper use of the head mirror and Bull's eye lamp	1
4.	Inspecting the external nose	1
5.	Examination of the skin over the external nose	1
6.	Examination of the nasal bone for crepitus	1
7.	Looking for the tenderness of the nasal skeleton	2
	Assessment of Professional Behavior	-
8.	Explained the procedure to the subject	1
9.	Introduced himself/herself by name.	1
10.	Made the subject feel comfortable and at ease	1

(Table 1) cont....

Sr. No.	Checklist	Mark
11.	Informed the subject regarding the completion of the procedure and thanked the subject	1
Total		12

Clinical Application

1. Diagnosing external deformities with or without nasal septal deformities
2. Functional and cosmetic considerations of these deformities
3. Possible investigations the patient may need to reach the final diagnosis
4. Surgical management of different external nasal deformities

Method

The external nose consists of a bony (upper one-third) and cartilaginous framework (lower two-third). Examination involves inspection and palpation of the framework.

The student should greet the patient, introduce himself/herself, and sit facing the patient with their knees together and to one side of the patient's legs. It is not pleasant for the patient to be straddled. Inspect the external surface of the nose from the front, side, and below, and any abnormalities like skin lesions, surgical or other scars, sinus, cystic lesion, or any other obvious lesion are noted (Fig. 1). Any asymmetry of the nose and naso-facial region should be noted. Crooked nose or scoliotic nose should be looked for.

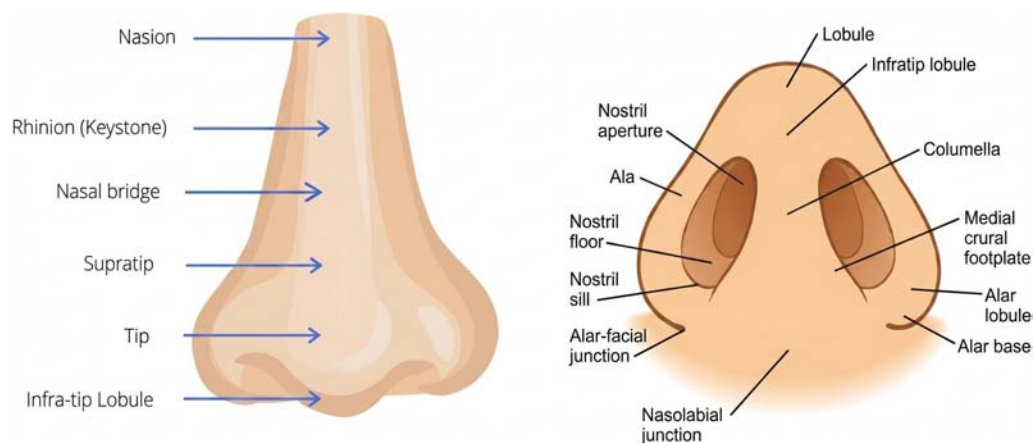


Fig. (1). External structure of the nose.

CHAPTER 3

OSCE – ORAL Cavity and Oropharynx**Sagar Gaurkar¹ and Prasad Deshmukh^{1,*}**

¹ Department of ENT, Jawaharlal Nehru Medical College, Datta Meghe Institute of Higher Education & Research, Wardha- 442004, India;

Abstract: The oral cavity is the first component of the digestive tract, bounded by the lips anteriorly and the oropharynx posteriorly. The oral cavity serves as a defensive barrier and is a vital element for speech, swallowing, chewing, the initial stage of digestion, and the perception of taste. The oral examination involves a systematic and consistent assessment of the head and neck, as well as a detailed evaluation of the hard and soft tissues within the oral cavity, together with a comprehensive analysis of the medical and dental history.

Keywords: Cold spatula, Indirect laryngoscopy, Tonsil.

SKILL STATION- EXAMINATION OF THE ORAL CAVITY

Type of OSCE station: Procedural station

Domain: Affective, Psychomotor, Cognitive, and Communication

Introduction

The oral cavity, commonly known as the mouth, is a complex anatomical structure that extends from the lips to the oropharynx, playing a vital role in various physiological functions. It is divided into two main sections: the vestibule and the oral cavity proper. The vestibule is the space in the mouth located between the lips and cheeks externally and the teeth and gums internally (Table 1).

The oral cavity proper is the larger, central space of the mouth that is fully enclosed by the dental arches and is involved in the mechanical breakdown of food through mastication. The oral cavity also facilitates the initial stages of digestion with the enzymatic action of saliva [1]. Additionally, it is essential for speech production, as it houses structures such as the tongue, teeth, and palate,

* **Corresponding author Prasad Deshmukh:** Department of ENT, Jawaharlal Nehru Medical College, Datta Meghe Institute of Higher Education & Research, Wardha- 442004, India; E-mail: prasaddeshmukh@gmail.com

which modulate sound and articulate speech [2]. Furthermore, the oral cavity contributes to respiratory functions and serves as a barrier to protect against pathogens, making it integral to both systemic health and daily human activities [1].

Knowledge of the following is expected from the students

1. Anatomy of the oral cavity
2. Various diseases of the oral cavity
3. Various malignant, premalignant lesions of the oral cavity, including leucoplakia and submucous fibrosis
4. Various predisposing and etiological factors

Table 1. Station: Oral cavity examination.

Sr. No.	Check List	Mark
1.	Use of the local language to extract history	1
2.	Ask leading questions to elicit positive and negative history	1
3.	Proper use of the head mirror and Bull's eye lamp	1
4.	Proper use of a tongue depressor	1
5.	Examination of the tongue and palate	2
6.	Examination of the floor of the mouth	2
	Assessment of Professional Behavior	-
7.	Explained the procedure to the subject	1
8.	Introduced himself/herself by name.	1
9.	Made the subject feel comfortable and at ease	1
10	Informed the subject regarding the completion of the procedure and thanked the subject	1

Clinical Applications

1. Diagnosing diseases of the oral cavity
2. Eliciting various signs like tenderness and induration while examining the oral cavity
3. Diagnosing different lesions of the oral cavity
4. Various investigations the patient may require to reach the final diagnosis

Method

For examining the oral cavity, the student must ensure good lighting and have the necessary tools, such as a tongue depressor, headlight or head mirror, and gloves.

The initial inspection begins by observing the lips for any lesions, color changes, or abnormalities. Ask the patient to open their mouth wide for a better view. Continue the examination as follows (Fig. 1):

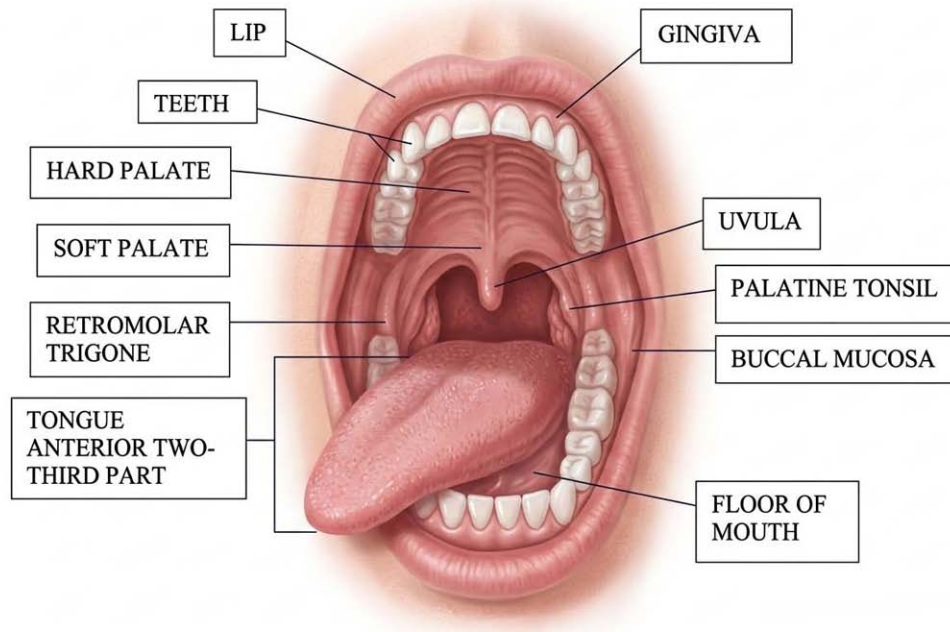


Fig. (1). Oral cavity.

Examination of the Oral Mucosa

Inspect the buccal mucosa, looking for any ulcers, lesions, or colour changes. Use a gloved finger or a tongue depressor to gently retract the cheeks for a better view.

Examination of the Teeth and Gums

Inspect the teeth for alignment, cavities, or damage. Examine the gums or gingiva for color, swelling, or signs of bleeding.

Examination of the Tongue

Ask the patient to stick out their tongue to observe its surface and movements. Check the undersurface of the tongue by asking the patient to lift it. Palpate the tongue to rule out any swelling or tenderness.

CHAPTER 4

OSCE – LARYNX and NECK**Chandraveer Singh¹ and Prasad Deshmukh^{1,*}**

¹ Department of ENT, Jawaharlal Nehru Medical College, Datta Meghe Institute of Higher Education & Research, Wardha- 442004, India

Abstract: An examination of the internal structures of the larynx, including the vocal folds, is called laryngoscopy. Mirror indirect laryngoscopy is the first and oldest (having been available for over a century) method of examining the larynx, which involves inserting a small angled mirror, such as a dentist might use, into the back of the mouth. The rigid transoral laryngoscopy method functions similarly to a mirror, except instead of using a mirror, a rigid endoscope is put into the oropharynx. This device is equipped with its own light source, enabling the examiner to record and magnify the examination, as well as conduct stroboscopy. This feature makes it the most effective method for assessing nuanced issues.

Keywords: Larynx, neck, IDL mirror, vocal cord.

SKILL STATION- EXTERNAL EXAMINATION OF THE LARYNX

Type of OSCE station: Procedural station

Domain: Affective, Psycho-motor, Cognitive, and Communication

Introduction

The larynx, commonly known as the voice box, is a vital organ located in the neck, responsible for phonation, protecting the airway during swallowing, and facilitating breathing (Table 2). It houses the vocal cords and is intricately involved in speech production and sound modulation. The external examination of the neck is crucial for diagnosing laryngeal diseases, as it can reveal signs such as masses, swelling, or tenderness that may indicate underlying pathology [1]. Palpation and visual inspection of the neck provide essential information about the structural integrity of the larynx and surrounding tissues. This examination helps identify conditions such as laryngeal cancer, trauma, nodules, or cysts, allowing for timely intervention and management [2].

* Corresponding author **Prasad Deshmukh:** Department of ENT, Jawaharlal Nehru Medical College, Datta Meghe Institute of Higher Education & Research, Wardha- 442004, India; E-mail: drprasaddeshmukh1967@gmail.com

Knowledge of the following is expected from the students

1. Anatomy of the larynx
2. Physiology of the larynx
3. Movement of the larynx, including laryngeal crepitus
4. Diagnosing swellings in the anterior part of the neck
5. Interpretation of the various types of change in voice

Table 1. Station: External examination of larynx.

Sr. No.	Check List	Mark
1.	Use of the local language to extract history	1
2.	Ask leading questions to elicit positive and negative history	1
3.	Proper use of the head mirror and Bull's eye lamp	1
4.	Proper palpation of the laryngeal framework	1
5.	Checking for laryngeal crepitus	2
6.	Examining the movement of the larynx	2
	Assessment of Professional Behaviour	-
7.	Explained the procedure to the subject	1
8.	Introduced himself/herself by name.	1
9.	Made the subject feel comfortable and at ease	1
10.	Informed the subject regarding the completion of the procedure and thanked the subject	1

Clinical Applications

1. Diagnosing laryngeal crepitus in post-cricoid malignancy or retropharyngeal abscess
2. Various factors for laryngeal widening
3. Eliciting laryngeal tenderness

Method

The following aspects of the larynx should be observed by neck examination:

- Color of the skin

Normal skin color indicates good vascular supply and absence of inflammation or infection.

- Asymmetry of the larynx

Asymmetry in the appearance or movement of the larynx can be indicative of various laryngeal conditions. During examination, note any deviation or irregular contour in the laryngeal framework, which may suggest masses, tumors, or unilateral paralysis of laryngeal muscles. Asymmetry can also result from structural abnormalities, previous surgeries, or trauma. Identifying asymmetry helps in diagnosing conditions like laryngeal cancer, vocal cord paralysis, laryngeal fractures, or even pulmonary diseases.

- Laryngeal widening

Laryngeal widening is assessed by observing any enlargement or abnormal bulging in the neck and palpating the laryngeal cartilages.

The student should ensure that the patient is seated comfortably with their neck relaxed and slightly extended. Explain the procedure to the patient to ensure their cooperation and reduce anxiety. Stand in front of or beside the patient. Use your fingers to locate the thyroid prominence, commonly known as the “Adam’s apple.” This serves as a landmark for the larynx. Place your fingers, index and thumb, gently on either side of the thyroid cartilage (Fig. 1). Apply light pressure and feel for any enlargement, irregularity, or asymmetry in the laryngeal area. Note the consistency of the structures; firm or fixed masses might suggest pathological changes.



Fig. (1). Examination of laryngeal widening and laryngeal crepitus.

OSCE - Response Stations

Prasad Deshmukh¹ and Farhat Khan^{1,*}

¹ Department of ENT, Jawaharlal Nehru Medical College, Datta Meghe Institute of Higher Education & Research, Wardha- 442004, India

Abstract: An objectively structured clinical examination (OSCE) is meant to observe clinical skill, acumen, performance, and competence. In ENT, skills like communication, clinical examination, medical procedures, radiographic image evaluation, and interpretation of results are assessed. It is a hands-on approach to learning that keeps examinees involved and engrossed, allowing them to understand the key factors that decide the medical decision-making process.

Keywords: Ear, Head, Larynx, Nose, Neck, Throat.

INTRODUCTION

Emergent cases in ENT necessitate quick and precise intervention to prevent significant morbidity and mortality. This chapter provides a guide on managing critical ENT conditions, emphasizing common and life-threatening emergencies, including severe infections, airway obstructions, and trauma-related issues [1, 2]. Addressing these conditions requires a multidisciplinary approach and a deep understanding of the underlying anatomy, pathophysiology, and current treatment protocols [2, 3]. This knowledge can enhance patient outcomes through precise diagnosis and prompt interventions, facilitating effective management of urgent clinical situations in both hospital and pre-hospital settings.

- A 45-year-old male is brought to the casualty department after a severe road traffic accident. On examination, he is conscious but disoriented, with clear fluid draining from his right nostril, and shows a target sign, as shown in Fig. (1). He also complains of severe headache and neck stiffness. There is no immediate evidence of other injuries.

1. Identify the given condition
2. Identify the various sites of leak
3. What is the most appropriate initial investigation

* **Corresponding author Prasad Deshmukh:** Department of ENT, Jawaharlal Nehru Medical College, Datta Meghe Institute of Higher Education & Research, Wardha- 442004, India; E-mail: drprasaddeshmukh1967@gmail.com



Fig. (1). Target sign made by the watery nasal discharge when collected on a piece of filter paper.

Answers

1. Cerebrospinal Fluid (CSF) rhinorrhea
2. Cerebrospinal fluid from the anterior cranial fossa reaches the nasal cavity through (i) The cribriform plate (ii) The frontal sinus (iii) The roof of the ethmoid air cells

CSF from the middle cranial fossa results from injury to the sphenoid sinus.

In temporal bone fractures, cerebrospinal fluid (CSF) enters the middle ear and then exits *via* the Eustachian tube into the nasal cavity, termed CSF otorhinorrhea [4].

3. Beta-2 transferrin (asialotransferrin) protein [5]

Notes

CSF rhinorrhea is the effusion of cerebrospinal fluid into the nasal cavity, resulting from a defect in the skull base. CSF, with a total volume of 90–150 mL, is secreted at approximately 20 mL/hour (350–500 mL/day) and is replaced 3–5

times daily. Common etiologies include skull base trauma, iatrogenic injuries following surgical procedures, infections (mucocoeles, mucormycosis, osteomyelitis), tumors infiltrating the skull base, congenital anomalies (meningocele or meningoencephalocele), or idiopathic leaks [5]. Patients typically present with clear, watery nasal discharge that exacerbates with bending or straining (reservoir sign), as the fluid accumulated in the sinuses, especially the sphenoid, drains into the nasal cavity. In traumatic cases, the discharge may mix with blood, exhibiting a “double ring sign”, “target sign”, or “Halo sign” on filter paper [6].

Diagnosis involves nasal endoscopy to locate the leak, along with imaging studies such as high-resolution CT, CT or MRI cisternography, or intrathecal fluorescein testing to confirm and map the defect. Management includes conservative measures, such as bed rest, head elevation, stool softeners, and the avoidance of sneezing or blowing the nose. Prophylactic antibiotics are used to avert meningitis [7]. Surgical intervention may be necessary, including procedures such as endoscopic approaches for cribriform plate or sphenoid defects, along with other site-specific techniques for successful closure [7, 8].

- A 30-year-old man came to the emergency room with complaints of pain and swelling in the nose, with difficulty in breathing after an alleged history of fall. On examination, there is external nasal deviation with bilateral swelling of the nasal septum, which is tender and reddish (Fig. 2). The CT examination of the nasal bone can be seen in Fig. (3).



Fig. (2). External examination of the nose.

SUBJECT INDEX

A

Absolute bone conduction (ABC) 10, 17, 18, 19, 20, 140, 142
 Abnormalities 1, 2, 35, 37, 40, 45, 61, 62, 63, 67, 76, 78, 82
 Abscess 70, 90, 93, 95, 96, 97, 103, 123
 Acoustic rhinometry 35, 52
 Acute suppurative otitis media (ASOM) 118, 119, 130
 Adam's apple 71
 Adenoid hypertrophy 35, 162, 163, 164
 Affective 1, 5, 8, 10, 15, 17, 25, 27, 36, 38, 43, 46, 49
 Airway compromise 97, 98, 116
 Airway obstruction 84, 93, 97, 159
 Alexander's law 22, 23, 24
 American joint committee on cancer (AJCC) 81
 Anatomy 46, 47, 50, 53, 60, 64, 65, 70, 74, 130, 134, 148, 149
 Anterior commissure 73, 76, 78, 179
 Anterior rhinoscopy 38, 39, 40, 41, 42, 43, 44, 46, 50, 53, 56, 146, 153
 Antibiotics 89, 135, 158
 Assessment 8, 15, 18, 35, 36, 38, 39, 50, 53, 56, 60, 74, 79
 Assessment of professional behaviour 2, 6, 11, 22, 26, 28, 44, 47, 64, 70
 Asymmetry 28, 31, 37, 38, 67, 71, 136
 Auditory functions 46, 49, 117, 127, 130

B

Backwards 6, 7, 8, 88
 Base 10, 11, 16, 19, 64, 66, 67, 76, 78, 92, 93, 94
 Batteries 1, 99, 100, 179, 184
 Bell's palsy 28, 102, 103

Benign paroxysmal positional vertigo (BPPV) 24
 Biopsies 78, 81, 101, 147, 153, 154, 160, 174, 179, 183, 186
 Bleeding 44, 45, 61, 63, 90, 91, 117, 146, 170, 171, 173
 Blood supply 151, 152
 Body 3, 5, 8, 81, 169, 172, 173
 Bone conduction (BC) 11, 12, 13, 14, 15, 18, 20, 139, 140
 Boyle-davis mouth gag 167, 168

C

Caldwell-luc operation 156
 Cartilage 5, 37, 71, 72, 73, 81, 88, 135, 144, 145
 Causative organism 131, 135, 136, 158, 161
 Cavities 38, 41, 48, 49, 60, 61, 63, 90, 130, 147, 155, 185
 Cerebrospinal fluid (CSF) 85, 86
 Cervical lymphadenopathies 79, 108
 Cholesteatoma 25, 27, 32, 125, 126, 127, 130
 Chronic tonsillitis 63, 64, 66, 93, 167, 169, 170, 173
 Clinical applications 1, 2, 5, 6, 9, 11, 16, 18, 26, 28, 37, 39, 44, 47, 50
 Cochlea 12, 18, 25, 105, 134, 139
 Cold spatula test 35, 39, 44, 47, 49, 50, 51, 52
 Complications 90, 93, 100, 101, 116, 117, 120, 121, 123, 127, 128, 180, 182
 Computed tomography (CT) 86, 93, 95, 105, 107, 122, 124, 139, 143, 154, 182
 Conditions 66, 84, 89, 94, 96, 97, 102, 105, 106, 122, 123, 124, 139, 143, 154, 156, 157, 159, 168, 174
 Cottle's test 35, 49, 50, 52
 Crypts 64, 65, 169, 172

D

Debris 90, 117, 120, 126, 128, 131, 132
Deformities 36, 37, 39, 49, 88, 89, 143, 146, 157, 158
Diagnosis 86, 89, 90, 93, 95, 96, 104, 106, 107, 137, 139, 159, 160, 162
Diagnostic nasal endoscopy (DNE) 35, 150
Direct laryngoscopy 77, 78, 174
Discharge 1, 86, 104, 106, 128, 131, 132, 133, 134, 162
Dix-hallpike manoeuvre 23, 24

E

Electromyography (EMG) 31, 32, 103
Electroneuronography (ENoG) 31, 32, 103
ENT practice 127, 132, 140, 166, 186
Epistaxis 45, 90, 91, 148, 150, 162
Eustachian tube 46, 49, 85, 119, 130, 163
Examination 1, 2, 6, 8, 27, 28, 36, 39, 40, 41, 43, 45, 60, 61, 62, 69, 71, 79, 80, 175
External auditory canal (EAC) 5, 6, 7, 8, 10, 12, 19, 117, 133, 135, 137, 142
External examination 44, 69, 74, 82, 86, 158, 159

F

Facial nerve (FN) 27, 28, 30, 31, 32, 102, 103, 104, 134, 135, 137
Fine needle aspiration cytology (FNAC) 81
Fistula test 25, 26, 27, 32
Foreign bodies 1, 78, 95, 99, 100, 101, 117, 128, 133, 146, 147, 148, 153, 179, 180, 181, 182, 184
Functional endoscopic sinus surgery (FESS) 154, 156

G

Geniculate ganglion 32, 103, 137

Gingivitis 63
Grommets 118, 120, 121, 123

H

Haemostasis 150, 171, 173
Headlight 6, 35, 47, 60
Histopathology 139, 157, 158, 162, 184
History 2, 6, 9, 10, 15, 17, 18, 23, 32, 40, 47, 59, 86, 89, 99, 101, 137
Hoarseness 78, 100, 175, 176
House-brackmann grading 30, 31, 32
Hz (Hertz) 10, 11, 14, 15, 16, 18, 19, 139, 140

I

Incision 89, 90, 93, 96, 97, 118, 119, 120, 177
Indications of tonsillectomy 169
Indirect laryngoscopy 59, 64, 69, 73, 74, 75, 76, 77, 78, 82, 178
Infections 38, 46, 62, 63, 64, 79, 84, 89, 90, 95, 97, 98, 104, 105, 107, 108, 116, 117, 121, 123, 131, 132, 137, 154, 159, 162, 167, 169, 173
Investigations 32, 36, 37, 39, 43, 44, 46, 47, 50, 52, 53, 60, 63, 64, 74, 79, 84, 94, 96, 104, 105, 122, 124, 154, 168

J

Jobson-horne probe 44, 128
Jugulo-digastric lymph nodes 64, 167

L

Labyrinth 25, 27, 105
Laryngeal cancer 69, 71, 175, 176
Larynx 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 82, 84, 178, 179, 181
Levels I-VII 78, 79, 81, 82
Ludwig's angina 63, 73, 96, 97

Lymph nodes 64, 67, 78, 79, 80, 81, 82, 90, 94, 108, 109, 110, 111

M

Management 32, 46, 67, 69, 81, 82, 84, 87, 88, 89, 90, 95, 97, 99, 100, 101, 104, 105, 107, 116, 123, 125, 130, 136, 137, 147, 150, 151, 182, 184
 Mastoid 1, 2, 3, 4, 12, 13, 18, 19, 122, 123, 125, 129, 130, 131, 140, 142
 Maxillary sinuses 55, 63
 Meniere's disease 24, 27, 105
 Middle ear 8, 10, 12, 14, 18, 25, 27, 32, 46, 105, 118, 120, 121, 123, 129, 130, 132, 133, 134, 139
 Mirror 47, 48, 59, 64, 69, 73, 74, 75, 76, 77, 82, 116, 178, 184, 185
 Mouth breathing 163
 Myringotomy 9, 118, 119, 133

N

Nasal cavity 35, 36, 38, 39, 40, 43, 49, 52, 53, 85, 91, 147, 148, 150, 153, 165
 Nasal septum 35, 38, 39, 40, 49, 56, 86, 88, 89, 90, 143, 144, 145, 146, 147, 152, 153, 157, 160
 Nasopharynx 35, 46, 47, 48, 49, 158, 162, 163, 165
 Necrotizing fasciitis (NF) 106, 107
 Nerve excitability test (NET) 31, 103
 Nystagmus 21, 22, 23, 24, 25, 26, 27

O

Obstructive sleep apnea (OSA) 66, 67
 Oropharyngeal examination 64, 92, 155
 Otorhinolaryngology 116, 148, 153, 178, 180, 182
 Otoscopic examination 101, 120, 122, 124, 125, 131, 134, 135

P

Palpation 37, 38, 54, 55, 61, 62, 64, 66, 67, 69, 70, 71, 72, 79, 80, 89, 108
 Paranasal sinuses 35, 45, 49, 53, 54, 55, 56, 143, 154
 Pathologies 14, 23, 45, 46, 53, 56, 69, 79, 81, 130, 154, 179
 Peritonsillar abscesses 66, 73, 92, 93, 166, 169
 Polyps 35, 39, 43, 45, 49, 53, 56, 76, 78, 147, 153, 154, 155, 156, 162, 165, 174, 179
 Posterior rhinoscopy 35, 46, 47, 48, 49, 53, 56, 164, 165, 166

R

Ramsay hunt syndrome 137
 Recovery 31, 32, 102, 103, 104, 105, 107, 175
 Removal 39, 43, 99, 100, 101, 117, 128, 146, 147, 150, 153, 154, 162, 169, 170, 171, 172, 181, 182, 184
 Rhinoscleroma 157, 158, 159
 Rhinosporidiosis 161, 162
 Rinne test 10, 11, 12, 13, 14, 20, 32, 140, 141

S

Sensorineural 11, 14, 16, 17, 19, 20, 25, 32, 104, 105, 139, 140, 141, 143
 Septoplasty 88, 143, 145, 146, 147, 150, 153, 154, 157
 Siegel's speculum 25, 26, 27
 Squamous cell carcinoma (SCC) 108, 176
 Stapedectomy 27, 133, 139
 Stridor 78, 96, 97, 98, 99, 176

T

Tenderness 1, 2, 3, 36, 38, 53, 54, 55, 56, 60, 61, 62, 63, 67, 69, 70, 72, 89, 90, 93
 Thudicum speculum 35, 39, 40, 41, 42, 43, 44, 146, 147
 Tonsils 63, 64, 65, 66, 67, 92, 93, 109, 163, 166, 167, 168, 169, 170, 171, 172, 173

Subject Index

OSCE in ENT Practice 195

Tracheostomy 93, 95, 96, 97, 98, 100, 101,
107, 177, 179

Tuning fork tests 10, 11, 12, 13, 14, 15, 17,
18, 20, 32, 140, 141, 142, 143

V

Video-directed laryngoscopy (VDL) 174, 175

Vocal cords 69, 73, 74, 75, 76, 98, 100, 174,
175

W

Waldeyer 46, 163, 164

Weber test 10, 14, 15, 16, 17, 20, 32, 140,
141, 142



Prasad Deshmukh

Dr. Prasad Deshmukh, born in 1967, completed his MBBS in 1988 and later obtained his MS in ENT in 1992. Over the past 33 years, he has built a long and distinguished career in both medical education and clinical practice. Since 2005, he has been serving as a Professor of ENT at DMIHER, where he has played an important role in teaching and mentoring students in the field of otorhinolaryngology.

Throughout his academic career, Dr. Deshmukh has made significant contributions to research and medical literature. He has authored more than 50 publications in national and international journals. In addition, he wrote the book 'Overview of Otology', which was published in 2012. His special areas of interest include rhinoplasty and other advanced ENT procedures.

Dr. Deshmukh has been actively involved in postgraduate teaching for the past 16 years. During this time, he has guided 22 postgraduate students and has also served as a PhD supervisor for seven doctoral scholars. His dedication to mentoring young doctors reflects his strong commitment to education and research.

He has also been actively involved in academic conferences and professional gatherings, keeping himself engaged with the latest developments in his field.

In recognition of his dedication to teaching and his contributions to medical education, Dr. Deshmukh has been honored with the "Best Teacher Award" for three consecutive years. His commitment to teaching, research, and patient care has earned him respect and recognition in the field of ENT.



Farhat Khan

Dr. Farhat Khan, is an ENT Surgeon, academician and researcher with a strong focus on clinical innovation and surgical education. She currently serves as an assistant professor in the department of otorhinolaryngology at Jawaharlal Nehru Medical College, DMIHER, Wardha, India. With extensive experience in managing complex ENT disorders, she is also involved in teaching undergraduate MBBS and allied health students while also contributing to academic research.

Dr. Khan has completed her M.S ENT from Jawaharlal Nehru Medical College in 2022 and continues to pursue advanced training and doctoral research in the field. Her academic interests include otology, endoscopic sinus surgery, airway surgery among other advanced ENT procedures.

She has authored numerous peer-reviewed publications in both national and international journals along with editorial contributions to various scientific research and holds multiple registered copyrights for innovative medical instruments and diagnostic method designed to improve clinical assessment and surgical precision.

Beyond clinical practice, Dr. Khan is passionate about advancing ENT education through research, teaching and medical writing. Her work reflects a commitment towards evidence-based medicine, innovation and the training of next generation of doctors and ENT surgeons.