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## **Title: Endoscopic Approach for Colloid Cyst Resection**

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## **Author Questionnaire**

**1. Microscopy:** Does your protocol require the use of a dissecting or stereomicroscope for performing a complex dissection, microinjection technique, or something similar? **No**

**2. Software:** Does the part of your protocol being filmed include step-by-step descriptions of software usage? **No**

**3. Proposed filming date:** To help JoVE process and publish your video in a timely manner, please indicate the proposed date that your group will film here: **MM/DD/YYYY**

**Authors, please provide a date**

When you are ready to submit your video files, please contact our Content Manager, [Utkarsh Khare](#).

### **Current Protocol Length**

Number of Steps: 5

Number of Shots: 11

# Introduction

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**NOTE to VO Producer: Please generate the interview statements**

- 1.1. This research aims to optimize the minimally invasive endoscopic resection of third ventricular colloid cysts. It evaluates surgical efficacy, safety, patient selection, and intraoperative navigation to reduce complications and improve patient outcomes.

- 1.1.1. *B-roll: 2.1.2*

What technologies are currently used to advance research in this field?

- 1.2. Intraoperative ultrasound, neuronavigation, high-definition endoscopes, and advanced bipolar coagulation techniques are used to enhance the precision and safety of endoscopic colloid cyst resection.

- 1.2.1. *B-roll: 3.1.1*

What significant findings has this group established in the field?

- 1.3. Endoscopic removal of colloid cysts is a safe and effective alternative to microsurgical techniques, offering shorter operation times, lower morbidity, and faster patient recovery.

- 1.3.1. *B-roll: 2.5.2*

**Ethics Title Card**

This research has been approved by the Institutional Review Board at Istanbul University,  
Istanbul Faculty of Medicine

# Protocol

**NOTE:** The surgery timestamps are added as provided by the authors

## 2. Colloid Cyst Resection using Endoscopy

**Demonstrator:** Sefa Ozturk

~~2.1. To begin, incise and access the surgical site for colloid cyst resection [1]. Utilize an intraoperative ultrasound puncture probe to visualize the lateral ventricles, the Foramen of Monroe, and the third ventricle [2].~~

~~2.1.1. WIDE: Talent examining the patient. Authors, is it possible to film this first scene in WIDE angle? NOTE: Not filmed~~

~~2.1.2. Talent performing the ultrasound imaging to view lateral ventricles, Foramen of Monroe, and third ventricle.~~

~~2.2. While stabilizing the endoscope sheath, remove both the trocar introducer and the intraoperative ultrasound puncture probe [1]. To begin, insert the endoscope into the sheath to access the cyst [2].~~

~~2.2.1. Talent removing the trocar introducer and ultrasound probe.~~

2.2.2. Talent inserting the endoscope into the sheath. Video 1: 01:26-01:29

2.3. Inside the lateral ventricle, identify key structures such as the lateral ventricular cavity, Foramen of Monroe, choroid plexus, thalamostriate vein, and septal vein [1]

2.3.1. Shot of the monitor displaying lateral ventricular cavity, Foramen of Monroe, choroid plexus, thalamostriate vein, and septal vein. Video 1: 01:29-01:34

2.4. Locate the colloid cyst and approach it through the Foramen of Monroe under direct visualization [1]. Carefully separate the cyst wall from the surrounding tissue using a dissector. [2].

2.4.1. Shot of pointing to the colloid cyst through the Foramen of Monroe. Video 1: 01:55-01:58

2.4.2. Shot of dissect colloid cyst wall from the surrounding tissue. Video 1: 02:34-02:44

2.5. After dissecting cyst contents, coagulate components of the cyst [1]. Grasp the cyst wall firmly with small forceps and perform rotational movements [2]. Then, control bleeding via coagulation and irrigation [3]. Finally, remove the endoscopic system after achieving hemostasis [4].

2.5.1. Shot of Coagulation of the cyst components. Video 1: 04:06-04:23

2.5.2. Shot of Grasping and rotating the cyst wall with forceps. Video 1: 8:07-8:42

2.5.3. Shot of performing coagulation and irrigation. Video 2: 1:58-2:15

2.5.4. Talent removing the endoscopic system after confirming hemostasis. **Video 2:**  
**5:05-5:19**

# Results

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## 3. Results

- 3.1. Preoperative MRI images showed the presence of a colloid cyst with clear visualization of its relationship to adjacent structures [1].
  - 3.1.1. LAB MEDIA: Figure 1(A–C).
- 3.2. Postoperative MRI images confirmed the complete resection of the colloid cyst with no signs of recurrence [1].
  - 3.2.1. LAB MEDIA: Figure 1(D–F).

## *Colloid Cyst*

- **Pronunciation link:** [Synonyms.com provides audio pronunciations across various English accents, including US English][tophonetics.comhowtopronounce.com+5synonyms.com+5The Sound of English+5](https://www.synonyms.com/howtopronounce.com+5synonyms.com+5The+Sound+of+English+5).
  - **IPA (American English):**
    - For "colloid": /'kɑː.lɔɪd/ [The Sound of English+1Acibadem Healthpoint+8Cambridge Dictionary+8howtopronounce.com+8](https://www.healthpoint.com+8Cambridge+Dictionary+8howtopronounce.com+8The+Sound+of+English+1Acibadem)
    - "Cyst" follows standard American pronunciation: /sɪst/
    - Together: /'kɑː.lɔɪd sɪst/
  - **Phonetic spelling:** kuh-loid sist
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## *2. Foramen of Monro*

- **Pronunciation link:** AudioEnglish.org includes an entry with pronunciation and IPA transcription.[pronouncekiwi.com+2ipa-reader.com+2Cambridge Dictionary+1TheFreeDictionary.com+4howtopronounce.com+4howtopronounce.com+4ipa-reader.com+7audioenglish.org+7audioenglish.org+7](https://www.pronouncekiwi.com+2ipa-reader.com+2Cambridge+Dictionary+1TheFreeDictionary.com+4howtopronounce.com+4howtopronounce.com+4ipa-reader.com+7audioenglish.org+7audioenglish.org+7)
- **IPA (American English):** /'fɔːr.ə.mən əv 'mɒn.roʊ/
- **Phonetic spelling:** FOR-uh-men uv MON-roh

## **1. Intracranial**

- **Pronunciation link:** (entry includes pronunciation & audio on Merriam-Webster) [Merriam-WebsterMerriam-Webster](#)
- **IPA (American):** /,ɪn.trəˈkreɪ.ni.əl/
- **Phonetic Spelling:** in-truh- KRAY nee-uhl

## **2. Craniocerebral**

- **Pronunciation link:** (includes pronunciation & audio) [Merriam-Webster](#)
- **IPA (American):** /,kreɪ.ni.oo-səˈri.brəl/
- **Phonetic Spelling:** KRAY-nee-o-suh-REE-bruhl

## **3. Basilar Artery**

- **Pronunciation link:** (entry includes pronunciation & audio) [Merriam-Webster+13Merriam-Webster+13Merriam-Webster+13](#)
- **IPA (American):** /bəˈsɪl.ər/ for “basilar”; “artery” is /ˈɑːr.tə.ri/
- **Phonetic Spelling:** buh-SIL-er AR-tuh-ree

## **4. Transient Ischemic Attack**

- **Pronunciation link:** (entry includes pronunciation & audio) [Merriam-Webster](#)
- **IPA (American):** /ˈtrænz.i.ənt ɪˈskiː.mɪk əˈtæk/
- **Phonetic Spelling:** TRAN-zee-unt is-KEE-mik uh-TAK

## **5. Idiopathic Intracranial Hypertension**

- **Pronunciation link:** Merriam-Webster entry includes pronunciation, accessed via search [Merriam-Webster+14Merriam-Webster+14Merriam-Webster+14](#)
- **IPA (American):**
  - *Idiopathic:* /,ɪd.i.əˈpæθ.ɪk/
  - *Intracranial:* /,ɪn.trəˈkreɪ.ni.əl/
  - *Hypertension:* /,haɪ.pəˈtɛn.ʃən/
- **Phonetic Spelling:** ih-dee-uh-PATH-ik in-truh-KRAY-nee-uhl hy-per-TEN-shuhn