

1. An auxiliary device for nasal cavity and adenoid surgery, comprising a main catheter (1); the main catheter (1) is provided with a first inflation balloon (2) and a second inflation balloon (3), which are communicated with each other and jointly form a notch (10) in the middle; when the first inflation balloon (2) and the second inflation balloon (3) are inflated and expanded, the notch (10) can be embedded and fixed in the posterior nostril area; wherein, the second inflation balloon (3) is attached to the adenoid tissue.

2. The auxiliary device according to claim 1, wherein the main catheter (1) is further provided with a third inflation balloon (4); the third expansion bag (4) is in contact with the nasopharyngeal side surface of the soft palate in the use state, and is located at an anatomical position close to the uvula.

3. The auxiliary instrument according to claim 2, wherein the main catheter (1) is further integrated with a connecting component (9); the connector (9) is equipped with a first inflation port (6) and a second inflation port (8).

4. The auxiliary device according to claim 3, wherein one end of the main catheter (1) is provided with a first buckle (5), and the other end is provided with a second buckle (7); the buckle is used to fix the device around the external support structure or the patient's mouth.

5. The auxiliary device according to claim 4, wherein the surface of one side of the second inflation balloon (3) facing away from the first inflation balloon (2) is coated with a heat-resistant material layer.

6. The auxiliary device according to claim 5, wherein the first inflation port (6) is used for conveying gas to the first inflation balloon (2), while the second inflation port (8) is used for providing gas source for the third inflation balloon (4).

7. The auxiliary device according to claim 6, wherein both the first inflation port (6) and the second inflation port (8) are equipped with a one-way valve structure, so that the gas will not flow backwards or leak after inflation.

8. The auxiliary device according to claim 7, wherein the main catheter (1) is made of any elastic material selected from natural rubber, silicone rubber or polyvinyl chloride; the first inflation balloon (2), the second inflation balloon (3) and the third expansion bag (4) are made of the same material as the main catheter.

9. A method for using an auxiliary device for nasal cavity and adenoid surgery according to any one of claims 1 to 8, comprising the following steps:

step 1, inserting the main catheter (1) from one nostril and passing through the oral cavity; closing the other end of the main catheter (1) to form a ring, and pulling the soft palate to expose the nasopharynx;

step 2, supplying air to the first inflation balloon (2) and the second inflation balloon (3) through the first inflation port (6), so that the first inflation balloon (2) and the second inflation balloon (3) are inflated, and the notch (10) is attached to the back nostril, and at the same time, the second inflation balloon (3) is attached to the adenoids, so that the adenoids move to the nasopharynx with the continuous entry of the air source;

step 3, supplying air to the third inflation balloon (4) through the second inflation port (8), so that the third inflation balloon (4) abuts against the uvula to protect the uvula and the nasopharynx surface of the soft palate;

step 4, during the operation, the first buckle (5) and the second buckle (7) are used to connect the two ends of the main catheter (1) located outside, and the first buckle (5) is tightened to enhance the pulling ability of the main catheter (1), and the inner diameter of the main catheter (1) in the nasal cavity and oral cavity can be adjusted as required.

10. An auxiliary device for nasal cavity and adenoid surgery according to claim 9, wherein both the first inflation port (6) and the second inflation port (8) are provided with one-way valves to prevent the air source from leaking outwards, so as to keep the internal pressure of the first inflation balloon (2), the second inflation balloon (3) and the third inflation balloon (4) stable, improve the stability of the auxiliary device in the nasal cavity and reduce the pressure;

after the operation, first deflate the first inflation balloon (2), the second inflation balloon (3) and the third inflation balloon (4), then disconnect the first buckle (5) and the second buckle (7), and take out the main catheter (1) from the nasal cavity and oral cavity; as the connector (9) and the main catheter (1) are detachable, the connector (9) can be detached from the main catheter (1) for replacement, and the interior of the main catheter (1) is convenient for cleaning.