

Midline Curvelinear Incision for Anterior Cervical Approach Ali Harati MD; Amir Al-Amin; Bacel Alkhatib; Rolf Schultheiss Neurosurgical Department, Klinikum Dortmund, Germany

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## Introduction

Anterior cervical approaches were first routinely performed by Cloward and Robinson. The following incisions have been most commonly used: For oneor two-level procedures, a curvilinear paramedian skin incision; for three or four-level anterior cervical procedures large vertical incision along the anterior border of the sternocleidomastoid muscle. We describe a curvelinear incision centered over the midline for the anterior cervical approach and describe its advantages compared with the previously described incisions based on the authors` experience.

## Results

Short- and long-term complications such as dysphagia, implant failure and recurrent nerve palsy occurred in less than 5 % and do not exceed other series. Esophageal injury occured in one patient with previous radiadtion therapy.

## Surgical techniques

1. Median curvelinear skin incision.

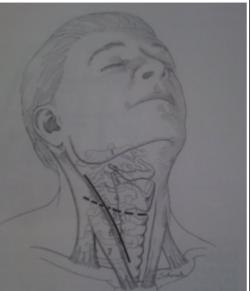
2. Left paramedian transversal incision of the playtsma.

3. Wide superior and inferior dissection of the sternocleidomastoid muscle fascia.

4. Dissection and retraction of sternocleidomastoid muscle and carotide artery laterally and the larrynx, esophagus, and strap muscles medially.

5. Incision of the longus colli muscle and placement of selfretaining retractors.

Image 1



Classic skin incisions for ventral cervical approaches

## Advantages:

1. Cosmetically superior because they blend the natural skin creases.

2. Self retraction system can be placed symmetrically over the anterior

cervical spine.

 Straight view allows better symmetrical neural decompression

compared to the more oblique view after paramedian skin incision.



Revision and extending 2-level to 3-level ventral approach through the same curevelinear midline skin incision

