Volume 4 • Issue 1 • 2022

Short Communication

Journal of Otolaryngology - Head and Neck Diseases

Achkar Cartilage Graft Crusher, for use in Rhinoplasty

Achkar Ibrahim*

Middle East Institute of Health, University Hospital, Lebanon

***Corresponding Author:** Achkar Ibrahim, Middle East Institute of Health, University Hospital, Lebanon.

Received: December 10, 2022; **Published:** December 28, 2022

Abstract

Here I describe new cartilage crusher that allows plastic surgeon to, crush/morselize, under direct vision, a single or multiple pieces of cartilage graft without fragmentation. This cheap and easy to manipulate cartilage crusher variant is a very appropriate instrument which can replace the stainless style cartilage crusher usually used in primary or secondary rhinoplasty for manipulating small cartilage graft.

Keywords: *Cartilage Crusher; Rhinoplasty; Cartilage graft*

Introduction

Preparing and sculpturing cartilage graft is a crucial step during rhinoplasty. It is a very delicate moment when the plastic surgeon selects a piece of cartilage to use as a graft. Usually in my long years of practice I used to crush cartilages for many uses in plastic surgery: Cartilage grafts are usually issued from nasal septum). After crushing, the graft cartilages may be used as a strut, as a layered graft, or as a filler in primary or secondary rhinoplasty. I here present a new instrument, which in my opinion facilitates the surgical procedure and makes it more straightforward to obtain desirable results.

Achkar cartilage graft crusher

The instrument is an idea that I have realized since almost 10 years; and is composed of two rectangular prisms made of transparent plexiglass. Each plexiglass prism measures (9cm in length×5cm in width×1cm in thickness) The thickness of each plexiglass is designed to allow to resist to strong pressure during stroke.

I used two types of stainless style hammers for crushing cartilage graft between the two plexiglasses; the first hammer (the smaller one) weighs 278g, had a handle of 15cm of length and a head of 5cm of length and 1,5cm of diameter (figure 1c, 1f); the second hammer (the bigger one) weighs 636g had a handle of 20cm of length and a head of 7cm of length and 2,5cm of diameter (figure 2c,2g)

In my experience, this instrument has replaced the traditional stainless cartilage crusher that I used before (Figure 1a, b, c). One of the difficulties and limitations of using the stainless cartilage crusher was that in many instances, the cartilage pieces tend to slip or to fragment especially when handling multiple cartilage pieces and you cannot monitor the results during the stroke.

The two identical rectangular plexiglass prisms are transparent; the cartilage is placed between them; the plexiglass prisms are well held on the preparation table between the thumb and forefinger for a good stabilization of the two prisms under direct vision and then the upper plexiglass is crushed with the hammer until reaching the desired configuration of graft cartilages; this allows a very precise evaluation of the shape and width of the cartilage (Figure 2)

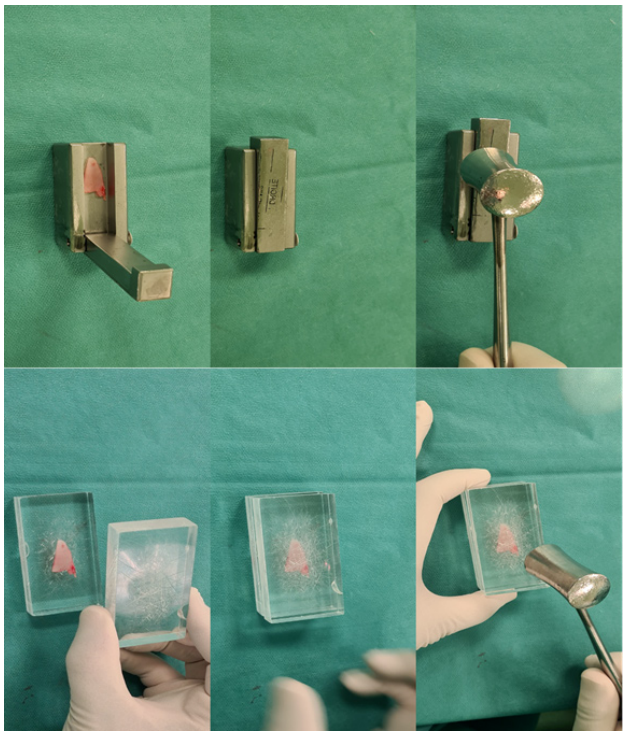

Figure 1: *a, b, c: stainless cartilage crusher shows no direct vision of the cartilage when mortalizing the cruscher; d, e, f: Achkar cartilage crusher shows direct control and vision of the cartilage when mortalizing the crusher.*

Figure 2: *Two examples of the utility of Achkar cartilage crusher with two little cartilages (a,b,c, d) and one big cartilage (e,f,g,h); note the final result for each case (d,h).*

I personally prefer the bigger hummer since the stroke is more precise than the smaller one. This easy to do instrument has helped make rhinoplasty procedures easier saving time and avoiding unnecessary frustration since the crushing is done under direct vision. this variant of cartilage crusher has no similar instrument, to our knowledge, in the scientific literature. I encourage plastic surgeons worldwide to use and evaluate this instrument.