

DESCRIPTION

AN APPARATUS DEVELOPED FOR HAIR TRANSPLANTATION

Technical Field

- 5 The invention relates to an apparatus developed for hair transplantation.

The invention relates particularly to hair transplantation apparatus which is used when the grafts (hair follicles) removed from the donor region in the hair transplantation, in other words hair transplant operations, are placed in the area to be transplanted.

Prior Art

- 10 Hair transplantation is the process of placing the hair follicles, which are taken from the body regions that are resistant to hair loss and especially the back of the head, near the neck, into the area where the hair is lost. In the modern sense, the first hair transplantation was developed in Japan in the 1930's, and as a result of the development of technology and the better analysis of hair and skin structure it has developed over the last few years.
- 15 Among the commonly used applications today, hair transplantation with hair transplant forceps and hair transplantation apparatuses are widely preferred.

- In the process of hair transplantation with hair transplant forceps, the hair follicles to be implanted are kept by forceps and placed in the channels opened in the skin. During this procedure, the tip of the forceps may come to contact with the hair follicles or compress
- 20 the hair follicles. These conditions can cause damage to the hair follicles. In addition, during the placement of the hair follicles into the channels, the follicles may split or twist.

- In hair transplantation procedures performed with hair transplantation apparatus, the follicles of the hair are placed within the apparatus with a placement area and guided in a channel before transferred to the channel where the hair will be implanted. In these
- 25 applications, because hair follicles are transferred to the channel where they will be implanted via guidance, they can be transplanted without having any damage, split or twist. A hair follicle implantation device developed accordingly is given in application no TR2016/10548. The said application refers to an apparatus that performs the transplantation of hair follicles to the channels in which the hair transplant will done. There

are channels provided on the hair follicle implantation device and after the implantation of the hair follicles into these channels, an auxiliary device is provided to push the hair from the channel into the hole to be transplanted. With this application, problems such as splitting, twisting at the follicle of hair is prevented to be encountered. However, in this
5 procedure, the necessity of using an auxiliary apparatus for pushing the hair follicle in the channel leads to prolongation of the processing time and requires extra workload. In addition, the hair follicle should not be completely buried under the skin, and a part of it should remain on the skin surface. Otherwise, hair twisting occurs in the transplanted area and problems such as not growing properly, or ingrown hair can be encountered.
10 Since it is not possible to observe the hair follicle as it is placed in the channel with the application.

As a result, the problems mentioned above and those that cannot be solved with using the current technique, have necessitated an innovation in the relevant technical field.

15 **Brief Description of the Invention**

The invention relates to an apparatus developed to be used in hair transplantation to eliminate the disadvantages mentioned above and bring new advantages to the relevant technical field.

The main purpose of the invention is to introduce a hair transplantation apparatus which
20 eliminates the need to the use of an extra apparatus when the hair follicle is implemented during the hair transplantation.

Another purpose of the invention is to introduce a hair transplantation apparatus which prevents the hair follicle from being completely buried under the skin.

Another purpose of the invention is to introduce a hair transplantation apparatus which
25 reduces the work load used during hair transplantation.

Another purpose of the invention is to introduce a hair transplantation apparatus which shortens the time of the hair transplantation process.

In order to realize all the purposes mentioned above and that will come out of the detailed explanation below, the invention is a hair transplantation apparatus comprising a tip

having a placement aperture in which the hair follicle is positioned and which allows the hair root to be inserted into a transplant channel; a body to which the tip is connected; and a handle connected to the continuation of the body; a slide bar positioned on said body, and providing the hair follicle positioned at said placement aperture is directed from a placement tip at the end of said tip to a transplanting channel and moving forward within the tip; and a spring provided within the body that allows the slide bar to be withdrawn at the end of transplantation process.

In a preferred embodiment of the invention, the said tip comprises an observation aperture in the continuation of the placement aperture, defined by partially covering the placement aperture, to observe the placement of the hair follicles to the transplant channel.

In another preferred embodiment of the invention, the tip of said slide bar comprises a pipe channel in which it moves.

In another preferred embodiment of the invention, said placement tip is configured in a blunt form.

In another preferred embodiment of the invention, said slide bar comprises a slide sleeve connected to the handle to provide forward movement drive.

In order to be able to understand the advantages of the present invention together with the additional elements, it is necessary to evaluate it with the figures explained below.

20

Brief Description of the Figures

- Figure 1 is a cross-section view of the hair transplantation apparatus of the invention.
Figure 2 is a side-perspective view of the tip of the hair transplantation apparatus.
Figure 3 is a top-perspective view of the tip of the hair transplantation apparatus.
Figure 4 is a cross-section view of the tip of the hair transplantation apparatus.

Reference Numbers

- 10 Hair Transplantation Apparatus
11 Handle

111 Slider Sleeve

12 Body

121 Spring

122 Slide bar

5 13 Tip

131 Pipe Channel

132 Placement Aperture

133 Observation Aperture

134 Placement Tip

10

Detailed Description of the Invention

In this detailed description, improvement of the invention is explained only for a better understanding of the subject matter and without any restrictive effect.

Figure 1 shows a section view of a hair transplantation apparatus (10) of the invention. Accordingly, said hair transplantation apparatus (10) preferably comprises a handle (11), a body (12) in the continuation of the handle (11) and a tip (13) provided at the end of said handle (12). In the handle (11) there is a slide sleeve (111) connected to the handle (11). There is a slide bar (122) positioned to extend in the body (12) within the slide sleeve (111). The said slide bar (122) is also connected to a spring (121) provided in the body (12).

Figure 2, Figure 3 and Figure 4 show the views related to the tip (13) of the hair transplantation apparatus (10) of the invention. Accordingly, in the preferred embodiment of the hair transplantation apparatus (10), the tip (13) consists of a pipe channel (131), a placement aperture (132) structured in the continuation of the mentioned pipe channel (131), an observation aperture (133) defined by partially covering the said placement aperture (132) and a placement tip (134) at end of the said placement aperture (133) configured in a blunt form.

In the use of the hair transplantation apparatus (10), the transplant channels (holes) must be opened in the areas of the scalp where hair is to be implanted. Throughout the process of implanting the hair follicles into the transplant channels, the operator is primarily positioned in the placement aperture (132) of the hair follicles placed on the back of hand.

The operator then inserts the placement tip (134) through the transplant channel formed in the scalp. After the hair transplantation apparatus (10) has been associated with the patient, with the movement provided on the slide sleeve (111) in the handle (11), the slide bar (122) is first moved forward in the pipe channel (131) and then started to push the hair follicle in the placement aperture (132). This process is provided with an operator control and operator observes the movement of the hair follicle through its entrance to the transplant channel formed in the scalp from the observation aperture (133). Hair transplantation process is carried out in such a way that the tip of the hair follicle is kept out, and after the hair transplantation, the placement tip (134) is removed from the transplant channel. When the handle (11) is released, said springs (121) associated with the slide bar (122) retract the slide bar (122) through the pipe channel (131) into the body (12) to drain the placement aperture (132). When the slide bar (122) is withdrawn, the placement aperture (132) becomes ready to receive the new hair follicle.

During hair implantation applications, it is undesirable for hair follicle to be completely buried in the scalp. The realization of this situation can cause the follicle to bend under the skin and to cause ingrown hair problems in the following periods. In the hair transplantation apparatus (10) of the invention, the entrance of the follicle into the skin can be clearly observed from the observation aperture (133) and the risk of the follicle being buried can be minimized. With the hair transplantation apparatus (10) of the invention, it is possible for the operator to place the follicle positioned at the placement aperture (133) to the transplant channel opened at the scalp with the slider (122) without using any auxiliary apparatus. In this way, while the hair transplantation process is accelerated, the work force can be reduced.

CLAIMS

1. A hair transplantation apparatus (10) comprising a tip (13) having a placement aperture (132) in which the hair follicle is positioned and which allows the hair root to be inserted into a transplant channel; a body (12) to which the tip (13) is connected; and a handle (11) connected to the continuation of the body (12);
5 **characterized by further comprising;** a slide bar (122) positioned on said body (12), and providing the hair follicle positioned at said placement aperture (132) is directed from a placement tip (134) at the end of said tip (13) to a transplanting channel and moving forward within the tip (13); and a spring (121) provided within
10 the body (12) that allows the slide bar (122) to be withdrawn at the end of transplantation process.
2. The hair transplantation apparatus (10) according to Claim 1, wherein said tip (13) comprises an observation aperture (133) in continuation of the placement aperture (132) defined by partially covering the said placement aperture (132) in order to
15 observe the placement of the hair follicles to the transplant channel.
3. The hair transplantation apparatus (10) according to Claim 1, wherein the tip (13) of said slide bar (122) comprises a pipe channel (131) in which it moves.
4. The hair transplantation apparatus (10) according to Claim 1, wherein said placement tip (134) is configured in a blunt form.
- 20 5. The hair transplantation apparatus (10) according to Claim 1, wherein said slide bar (10) comprises a slide sleeve (111) connected to the handle (11) to provide forward movement drive.

ABSTRACT

AN APPARATUS DEVELOPED FOR HAIR TRANSPLANTATION

5 The invention is a hair transplantation apparatus (10)) comprising a tip (13) having a placement aperture (132) in which the hair follicle is positioned and which allows the hair root to be inserted into a transplant channel; a body (12) to which the tip (13) is connected; and a handle (11) connected to the continuation of the body (12); a slide bar (122) positioned on said body (12), and providing the hair follicle positioned at said placement aperture (132) is directed from a placement tip (134) at the end of said tip (13) to a transplanting channel and moving forward within the tip (13); and a spring (121) provided within the body (12) that allows the slide bar (122) to be withdrawn at the end of transplantation process.

10

Figure 1