Cleft Treatment - Pediatric Playbook - Boston Children's Hospital

(0:00 - 0:09)

There are many different cleft diagnoses. This is an example of a unilateral cleft lip. You can see this only affects one side of the lip.

(0:10 - 0:34)

And this results from a failure of fusion of the lateral aspect of the lip and the medial aspect. This is normally repaired at approximately four months of age, and involves repairing both the skin on the outside, the muscle which is in the middle, and the mucosa, which is the inner tissue inside the lip. Normally, children after their lip repair stay one night in the hospital and can go home the very next day.

(0:34 - 0:47)

In terms of care, there's really no special care for the parents. I use all dissolving sutures, which will come out on their own. In terms of feeding, as long as they go back to their normal bottle, that's appropriate.

(0:47 - 0:58)

There's no special feeding routine for them. In terms of the timing of the cleft lip repair, generally we do this around four months of age. This gives you an opportunity to see your paediatrician.

(0:59 - 1:15)

The child has several months to grow, and we know that the child is healthy and prepared for a surgical procedure. It's important for you to know that the cleft lip does not cause any pain, and there's no reason to rush or do this any earlier than four months. This is an example of a bilateral cleft lip.

(1:16 - 1:37)

As you can see, both sides of the lip are affected. And this results when the lateral aspect of the lip on both sides does not fuse properly with this more midline segment of the lip. Now, because this involves both sides of the lip, this procedure takes slightly longer than the unilateral repair and may take two to four hours.

(1:37 - 1:48)

Again, these patients come in on the day of the procedure, and we watch them overnight. And usually, they do go home the first morning after the procedure. This is an example of an isolated cleft palate.

(1:49 - 2:04)

You can see in this diagram inside the mouth, the palate has not healed properly. This palatal shelf has not fused with this palatal shelf. Now, in this case, this is somewhat different than the lip in terms of the timing for the repair.

(2:05 - 2:23)

For the cleft palate patients, we repair the palates at approximately nine months of age. Now, in a case when it's just an isolated cleft palate that does not involve the lip, no other additional procedures are required. The only difference would be that children with a cleft palate do have an increased incidence of ear infections.

(2:23 - 2:39)

And for this reason, our otolaryngology colleagues will frequently place ear tubes. And these are the same ear tubes that are placed in all children who have frequent ear infections. In terms of the post-operative care, the nurses on our floor will discuss this with you.

(2:40 - 2:59)

We normally watch these patients for approximately two nights, and the children usually go home on post-operative day one or two. There will be some feeding instructions that the nurses will go over with you in terms of soft foods and what types of nipples and bottles to use. In this diagram, this is an example of a unilateral cleft palate.

(3:00 - 3:20)

So here we have a cleft of both the lip and the palate. In these cases, we normally begin working with our dental colleagues who place a dental device. And the purpose of this is to bring these segments of the cleft palate closer together prior to the lip repair.

(3:20 - 3:31)

This helps make the lip repair easier. This is called presurgical orthodontics or presurgical orthopaedics. After that dental device is removed, we repair the lip.

(3:31 - 3:49)

And this is normally at four to six months of age. This involves repairing the skin of the lip, the muscle, which is on the middle layer of the lip, and the mucosal tissue, which is on the interior surface of the lip. At approximately the nine to 10 months of age, we repair the palate.

(3:50 - 4:09)

This involves repairing not only the tissue of the palate that you can see on the outside, but also muscle, which is in the inner aspect of the soft palate, and also the nasal layer. So this is also a

three-layered closure. This diagram shows you an example of a bilateral cleft of the palate.

(4:10 - 4:32)

In this case, the lip on both sides has not fused with this central portion of the lip, called the prolabial segment. In addition, the palate has not fused in the middle. And you can see near the area where the teeth would come in, called the alveolus, this area has also not fused.

(4:32 - 4:51)

So you have a failure of fusion of the lip here, the palate in front, and also in back, where the palate should have come together in the middle. Now, in these cases, the treatment begins quite early. We work with our dental team, and they put a device in the mouth which helps to bring the palate together.

(4:51 - 5:10)

This is called presurgical orthodontics, or orthopaedics. This helps in the sense that it allows me to repair the lip under less tension, because the segments are not as far apart. Normally, after this dental device is removed, I repair the lip at approximately four to six months of age.

(5:11 - 5:22)

We normally watch the children for one to two nights. And then at approximately nine to 11 months of age, we repair the palate. This procedure takes approximately two hours.

(5:22 - 5:33)

And again, we watch the children for one to two nights. If you have a child with a cleft lip or palate, you can feel very comfortable coming to Boston Children's Hospital. We have one of the highest volume centres in New York City.

(5:33 - 5:46)

We treat approximately 150 new cleft children every year. And we have a multidisciplinary team that's here to help you. If you have more questions, please visit our website or call our office to make an appointment.