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RESEARCH ARTICLE

AESTHETIC OUTCOME COMPARISON BETWEEN MILLARD AND FISHER TECHNIQUE IN REPAIR OF UNILATERAL CLEFT LIP

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Abstract

Background and aims: The symmetrical shape of the nasolabial folds and both nose alae, along with a natural-looking philtrum and Cupid's bow in both static and dynamic phases, as well as a buried scar, are characteristics of the perfect lip restoration. The study's goal was to evaluate the Millard rotational advancement technique and the Fisher anatomical subunit approximation technique for unilateral cleft lip repair.
Methods: Prospective study for 30 patients submitted to Palestine Hospital in Sana'a City, Yemen, with unilateral cleft lip deformity between December 2022 and August 2024. The Millard rotational-advancement approach was used to correct fifteen patients with unilateral cleft lip deformity, while the Fisher anatomical subunit approximation technique was used to fix the remaining fifteen. NIH ImageJ software was used to evaluate the patients' postoperative photos using the Steffensen grading criteria. The normal side and the corrected side were compared in terms of lip length, cutaneous line symmetry, vermillion symmetry, scar appearance, Cupid's bow, nostril symmetry, and alar base.
Results: A study involving 69.2% males and 38.8% females aged 5-180 months with 30 unilateral cleft lips undergoing Millard and Fisher techniques found that patients with Millard techniques showed better cutaneous line symmetry, vermillion symmetry, and lip length compared to Fisher techniques. However, only 7.7% of patients with Millard procedures showed good Cupid's bow, scar appearance, nasal symmetry, and alar base compared to Fisher techniques. The study suggests that Millard techniques may be more effective in certain cases.
Conclusion: In conclusion, there was no discernible change in the anthropometric measurements between the two methods used for unilateral cleft lip repair. According to the study, there are several situations in which applying Millard approaches might be more successful.
Keywords: aesthetic outcome, anthropometric measurements, Fisher's technique, Millard's technique, Steffensen grading criteria, unilateral cleft lip.

INTRODUCTION

The cause of cleft lip and palate is improper facial tissue joining through development. They are a form of birth defect as a result. Frequent ear infections, speech, hearing, and feeding issues are all possible outcomes of these illnesses. The illness is linked to other conditions less than half of the time. Most of the time, the cause is unknown[1]. Pregnancy-related, diabetes, smoking obesity, an older mother, and certain drugs (such as those used to treat seizures) are risk factors[2]. With a mean frequency of 1/1000 live births worldwide, cleft lip is one of the most prevalent congenital abnormalities[3]. Numerous methods for repairing cleft lips were described. Reconstructing the normal nasolabial anatomy involves carefully dissecting the diseased orbicularis oris muscle insertions around the cleft and repositioning them in the proper anatomical position[4]. Over time, numerous methods for cleft lip repair have been reported, indicating that there is no one optimal method[5-7]. Nowadays, numerous protocols relying on multidisciplinary approaches at specialist institutes are used to manage cleft lip properly. In addition to providing a suitable anatomical restoration,

the goal of surgical repair is to enhance the lip's functionality and aesthetic appeal[8]. The symmetrical shape of the nose's alae and nasolabial folds on both sides, along with a natural-looking philtrum and Cupid's bow in both static and dynamic states, as well as a buried scar, are characteristics of the perfect lip repair[9].

The rotational advancement technique was first presented by Millard in 1964[10]. It involves rotating the medial portion of the flap downward while proceeding a lateral flap into the top portion of the lip. Rebuilding the philtrum and Cupid's bow, transferring the wound's tension beneath the base of the ala, reducing nasal flare, and guiding the alveolar process's natural growth are some benefits of this treatment. Wynn[11] and Davies[12] later reported variants of the triangular flaps that were implanted in the upper lip. However, the most often used technique for closing the unilateral cleft lip is still Millard's repair[13], which has lasted the test of time. Procedures that combine flaps in the top and lower parts were independently described by Skoog[14] and Trauner[15,16]. Fisher presented the anatomical subunit approximation technique in 2005. It adheres to the idea of the lip's anatomical components and is based on apreviously disclosed technique[17].

In order to create a smaller triangular flap above the cutaneous roll, as described by Noordhoff[18], Fisher's technique borrowed the Rose Thompson technique's idea of using sloped incisions to lengthen the lip[17]. The incisions were made with respect to the lip's anatomical subunits. For a long time, Millard's method was the accepted procedure in the Palestine Hospital Plastic Surgery department for unilateral cleft lip repair. Over the past ten years, there has been a surge in the application of Fisher's anatomic subunit approximation technique in cleft lip repair.

This study was carried out with the goal of evaluating the aesthetic outcome of the Millard and Fisher technique in the repair of unilateral cleft lip. It did this by evaluating the cutaneous line symmetry, vermillion symmetry, lip length, scar appearance, cupid's bow, nostril symmetry, and alar base.

SUBJECTS AND METHODS

Methods: NIH ImageJ software was used to evaluate the patients' postoperative photos on a computer in accordance with Steffensen grading guidelines 17. The normal side and the corrected side were compared in terms of lip length, cutaneous line symmetry, vermillion symmetry, scar appearance, cupid's bow, nose symmetry, and alar base. To prevent bias, this software measures the length of each parameter on the normal side as a control with a fixed value of (1). Then, on the repaired side, the same parameter is measured as a ratio of this value.

Study design: This study is a prospective clinical trial in design.

Ethics consideration: Approval of the study was attained from the medical research ethics committee. Written consent was taken from participants after translating it into the Arabic language.

Study population and area: The study population included 30 patients suffering from unilateral cleft lip who underwent surgical intervention to treat the cleft lip at Palestine Hospital in Sana'a, Yemen. Half of the patients managed by the Millard procedure and the other half by the Fisher procedure.

Sample size selection: The study sample was carefully selected according to the following inclusion criteria and exclusion criteria:

Inclusion criteria: The criteria for inclusion of patients in the research were patients less than 18 years old and patients with unilateral cleft lip repair with or without cleft palate.

Exclusion criteria: Patients with any of the following criteria were excluded: patients with systemic diseases and/or other syndromes, patients with bilateral cleft lip, and patients older than 18 years old.

Data collection: Data collection was performed using a standard form including a clinical examination sheet in which the measurements of seven clinical parameters were taken, namely lip length, cutaneous line symmetry, vermillion symmetry, scar appearance, cupid's bow, nostril symmetry, and alar base.

Surgical procedure:

Under general anesthesia with oral intubation and aseptic conditions, the operations were done. The Millard rotational-advancement approach was used to correct 15 patients in the first group who had unilateral cleft lip deformity. Figure 1 by use of methylene blue First, mark the noncleft side of Cupid's bow at point (2). Next, mark the nadir (centre) of Cupid's bow at point (1). Finally, mark the cleft side's peak at point (3). Finally, mark the wet-dry junction on the noncleft and cleft sides. Finally, mark the superior point of the philtral column on the noncleft side at point (6). On the cleft side, we need to reach this height for the typical philtral column.

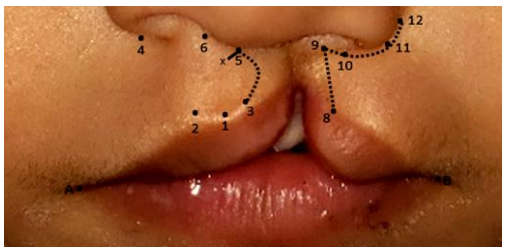

Figure 1: Steps for surgical delineation in reconstructing the upper lip arch.

We also need to establish the normal width of the nostril floor; to do this, mark the midpoint of the columeller base Point (5) and the alar base on the non cleft side, this distance must equal the distance between alar base and midline collumellar base mark and the defect in the nasal floor will need to be closed to close this distanced. Then mark the back cut point at the base of the C flap or rotation flap point (x); at that point, mark the superior tip of the advancement flap point (9); then mark the midpoint of the alar base cleft side (10); just then, mark the lateral base of the cleft side (11). Point (12) is the extent of the lateral alar base incision.

Noordhoff's point: it is the new peak of Cupid's bow on the cleft side at the end of the white roll on the

lateral side at the cleft, which must now be marked as point (8).

The incision is made through the vermillion to the new Cupid's bow peak and then up towards the columellar midway in the Millard repair using knife 15. At the end of the C-flap, a back-cut rotates in the direction of the columella. It rotates to form the nasal sill and lengthens the non-cleft side by releasing the lip. Avoiding crossing the non-cleft philtral column requires caution. Incision is made on the cleft side through the vermillion and Nordhoff point to the cleft lip's superior-medial most point, and then laterally along the skin/nostril sill connection back towards the sub-alare. In addition, by (knife11), the muscle was dissected free of the skin and mucosa and disinserted from its abnormal attachments; it can be re-approximated transversely in the midline. The mucosa is also closed in a separate layer; oral mucosa is closed by simple interrupted sutures (3.0 Ethicon vicryl round needle 17 mm), the muscle is closed by vertical mattress sutures (4.0 Ethicon vicryl round needle 17 mm), and skin is closed by simple interrupted sutures (5.0 or 6.0 vicryl rapid round or cutting needle 17 mm); vicryl rapid suture typically falls off 7-10 days postoperative.

Fisher's anatomical subunit approximation approach was used to treat the unilateral cleft lip deformity in the second group, which had 15 patients, as follows:

Closure lines are positioned along anatomic subunits, yet the marks are similar to Millard. The incisions are made on the base of the philtral column on the cleft side and then extend in a straight line to the planned peak of the Cupid's bow to cross the cutaneous roll perpendicularly. The incision then continues to run parallel to the non-cleft side's philtral ridge and continues superolaterally along the lipo-columellar crease to the nostril sill, effectively following the anatomical subunit boundary. Fisher's technique, which gained the idea of using sloped incisions to increase the length of the lip from the Rose-Thompson technique, is a technique that creates a small triangle above the white roll (triangular skin flap) and makes incisions at an angle to one another and inserts the small triangle from the lateral lip elements slightly above the white roll.

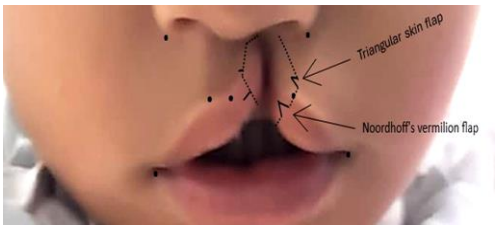

Figure 2: David M. Fisher's technique for repairing unilateral cleft lip.

Also, Fisher's technique gained the idea of using the Noordhoff dry vermillion flap from Dr. Michael S. Noordhoffby making A triangular vermilion flap from the lateral lip element augments the thickness of the vermilion on the medial aspect of the cleft, compensating for the central vermilion shortage (Figure 2).

Postoperative protocol: Maintain compression with a steri-strip bandage; NPO (no oral for 6 hours); nonsteroidal anti-inflammatory drugs (Dolphin 25 mg sup 1x2 or Profinal syrup 100 mg 1x2 or Ibuprofen tab 200 mg 1x2); intravenous antibiotics (Ceftriaxone 50 mg per kg 1x2); Gentamycin nasal drops 1x2; DNS infusion 1x2 (Dextrose and Sodium Chloride); and patients were told to change the steri-strip when it became dirty or after dressing, to start dressing on the second day, and to apply Tetracycline eye ointment after dressing. Any hard things should be avoided getting into the mouth cavity.

Postoperative assessment: The patient was scheduled for an assessment appointment 3 months postoperative. A submental and frontal photo were taken for each case using a Canon camera. After taking the photo, each case was assessed on computer using NIH ImageJ software according to Steffensen grading criteria for each parameter. Finally, the results of the assessment were analyzed statistically using SPSS (version 22) software**.**

Reliability of measurements: Using NIH ImageJ software (Figure 3), the researcher and research supervisor re-measured the clinical parameters for five individuals on photographs in order to confirm the correctness of the measurements.

Figure 3: NIH ImageJ software use for the accuracy of the measurements.

To assess the accuracy of his data, the researcher first evaluated the parameter for five people at one-week intervals. In order to calibrate their measurement techniques, the researcher and supervisor then re-measured the parameter for the same five people. The findings of the two measures were statistically analysed and compared using Cronbach's alpha coefficient. The following is an interpretation of the Cronbach's alpha coefficient, a statistical indicator of internal consistency: Excellent dependability is indicated by a score of 0.90, while good reliability is defined as a score of 0.7 or above. On the other hand, low reliability is indicated by scores less than 0.50.

Statistical Analysis: SPSS version 20 (SPSS Inc., Chicago, IL, USA) statistical software was used to analyze the data. Frequency distribution, percentages, and proportions were used in descriptive analyses.

RESULTS

Table 1 shows the distribution of children with unilateral cleft lip who underwent the Millard and Fisher technique for repair, by sex and age. There were 18 (69.2%) more males than females (8 (38.8%)). The mean age of the pediatric patients was 32.8 months (2.73 years), with a standard deviation of 32.8 months,

and their ages ranged from 5 to 180 months. Most patients were in the 24-60 months (2-5 years) age group (34.6%), followed by those under 12 months (26.9%), those 12-23 months (23.1%), and those over 60 months (15.4%).

Table 1: Gender and age distribution of unilateral cleft lip children subjected to Millard and Fisher technique in repair of unilateral cleft lip.

Characters	N (%)
Sex	
Male	18 (69.2)
Female	8 (38.8)
Total	26 (100)
Age groups (months)	
Less than 12 months	7 (26.9)
12-23 months	6 (23.1)
24-60 months	9 (34.6)
More than 60 months	4 (15.4)
Mean	32.6 months
SD	32.8 months
Median	18 months
Mode	12 months
Range	5 to 180 months

Table 2 displays the amount of the cleft lip, its side, and the distribution of the surgical approach used. In terms of surgical methods, 15 patients with unilateral cleft lips underwent the Millard technique, and 15 patients with unilateral cleft lips underwent the Fisher technique. In terms of cleft lip location, the majority of patients (65.4%) had cleft lips on the left side, whereas 34.6% had cleft lips on the right. Taking into account the extent of the cleft lip, 42.3% of cases had a complete cleft lip, and 57.7% had an incomplete one.

Table 2: Distribution of surgical technique used, side of cleft lip and extent of the cleft lip.

Characters	N (%)
Surgical technique	
Millard	13 (50)
Fisher	13 (50)
Side of cleft lip	
Right	9 (34.6)
Left	17 (65.4)
Extent of the cleft lip	
Complete	11 (42.3)
In-complete	15 (57.7)
Total	26 (100)

Table 3 displays the significant difference and positive results between the two patient groups based on Stevenson's evaluation criteria. 46.2% of patients who underwent Millard techniques showed good cutaneous line symmetry (Figure 4), but 0% of patients who underwent Fisher techniques did.

Table 3: Good outcomes according to Stevenson's evaluation criteria between the two groups and significance of variation.

Parameters	Millard N (%)	Fisher N (%)	X^2	*p*
Coetaneous line symmetry	6 (46.2)	0 (0)	7.5	0.006
Vermillion symmetry	4 (30.8)	2 (15.4)	0.83	0.36
Lip length	8 (61.5)	4 (30.8)	2.4	0.1
Scare appearance	1 (7.7)	7 (53.8)	6.2	0.01
Cupid's bow	1 (7.7)	5 (38.5)	3.3	0.06
Nostril symmetry	0 (0)	1 (7.7)	1	0.31
Alar base	6 (46.2)	5 (38.5)	0.15	0.68

Figure 4: Millard Technique.

Figure 5: Fisher Technique.

This difference was very significant, with chi-square equal to 7.5 and *p* equal to 0.006. Total 30.8% of patients who underwent Millard techniques showed good vermillion symmetry, compared to 15.4% of patients who underwent Fisher techniques. This difference was not statistically significant, with chi-square (X^2) equal to 0.83 and *p*=0.36. 61.5% of patients who underwent Millard procedures had good lip length, compared to 30.8% of patients who underwent Fisher techniques. This difference was not statistically significant, with X^2 equal to 2.4 and *p*=0.1. Just 7.7% of patients who underwent Millard procedures showed good scar appearance, compared to 53.8% of patients who underwent Fisher techniques (Figure 5).

Table 4: Average outcomes according to Steffensen's grading criteria between the two groups and significance of variation.

Parameters	Millard N (%)	Fisher N (%)	X^2	*p*
Coetaneous line symmetry	3 (23.1)	9 (69.2)	5.3	0.02
Vermillion symmetry	4 (30.8)	8 (61.5)	2.4	0.12
Lip length	5 (38.5)	9 (69.2)	2.37	0.12
Scare appearance	10 (76.9)	5 (38.5)	3.8	0.05
Cupid's bow	8 (61.5)	7 (53.8)	0.15	0.69
Nostril symmetry	8 (61.5)	9 (69.2)	0.6	0.16
Alar base	6 (46.2)	8 (61.5)	0.58	0.44

This difference was significant, with X^2 equal to 6.2 and *p* equal to 0.01. Just 7.7% of patients who underwent Millard procedures showed a good Cupid's bow, compared to 38.5% of patients who underwent Fisher techniques. This difference was not statistically significant, with X^2 equal to 3.3 and *p* equal to 0.06. Patients who underwent the Millard approach showed no good nasal symmetry (0%), and those who underwent the Fisher technique showed it 7.7%. This difference was not statistically significant, with X^2 equal to 1 and *p* equal to 0.31. 46.2% of patients who underwent Millard procedures had a good alar base, compared to 38.5% of patients who underwent Fisher techniques. This difference was not statistically significant, with X^2 equal to 0.15 and *p* equal to 0.68.

The average results between the two groups are displayed in Table 4 along with the importance of variation based on Steffensen's grading standards. Average cutaneous line symmetry was seen in 69.2% of individuals who received Fisher techniques compared to 23.1% of patients who had Millard techniques. With *p* equal to 0.0230 and X^2 equal to 5.3, this difference was very significant. Compared to 61.5% of patients who received Fisher procedures, just 8% of patients who underwent Millard techniques displayed average vermillion symmetry. With p=0.12 and X^2=2.4, this difference was not statistically significant. In contrast to 69.2% of patients who received Fisher treatments, 38.5% of patients who got Millard procedures had average lip length. With p=0.12 and X^2=2.37, this difference was not statistically significant. Compared to 38.5% of patients who had Fisher techniques, 76.9% of patients who had Millard techniques displayed average symptoms of scarring. With *p* equal to 0.05 and X^2 equal to 3.8, this difference was significant. In contrast to 53.8% of patients who received Fisher treatments, 61.5% of patients who underwent Millard operations displayed an average Cupid's bow. At X^2= 0.15 and p = 0.69, this difference was not statistically significant. Nasal symmetry was average in patients treated with the Millard approach (61.8%) and 69.2% in patients treated with the Fisher procedure. Given that the X^2 was equal to 0.6 and the *p*-value was 0.16, this difference was not statistically significant. Total 46.2% of patients who underwent Millard procedures had average alar bases, compared to 61.5% of patients who underwent Fisher techniques. This difference was not statistically significant, with X^2 equal to 0.58 and *p* equal to 0.44.

Table 5 displays the importance of variation as well as the subpar results between the two groups based on Steffensen's grading criteria. Total 30.8% of patients who underwent Millard techniques showed poor cutaneous line symmetry, as 30.8% of patients who underwent Fisher techniques did.

Table 5: Poor outcomes according to Steffensen's grading criteria between the two groups and significance of variation.

Parameters	Millard N (%)	Fisher N (%)	X^2	*p*
Coetaneous line symmetry	4 (30.8)	4 (30.8)	0	1
Vermillion symmetry	4 (30.8)	3 (23.1)	0.18	0.6
Lip length	0 (0)	0 (0)	0	1
Scare appearance	7 (15.4)	1 (7.7)	0.36	0.54
Cupid's bow	4 (30.8)	1 (7.7)	2.14	0.14
Nostril symmetry	5 (38.5)	3 (23.1)	0.69	0.4
Alar base	1 (7.7)	0 (0)	1.01	0.31

This difference was not significant, with X^2 equal to 0 and *p* equal to 1.30. 8% of patients who underwent Millard techniques showed poor vermillion symmetry, compared to 23.1% of patients who underwent Fisher techniques. This difference was not significant statistically, with X^2 equal to 0.18 and p=0.6. 0% of patients who underwent Millard procedures had poor lip length, compared to 0% of patients who underwent Fisher techniques. This difference was not statistically significant, with X^2 equal to 0 and p=1. Just 15.4% of patients who had Millard techniques showed severe signs of scarring, whereas 7.7% of patients who underwent Fisher techniques did. This difference was not significant, with X^2 equal to 0.36 and *p* equal to 0.54. Just 30.8% of patients who underwent Millard procedures showed a poor Cupid's bow, compared to 7.7% of patients who underwent Fisher techniques. This difference was not statistically significant, with X^2 equal to 2.14 and *p* equal to 0.14. Patients who underwent the Millard approach showed 38.5% had poor nasal symmetry, and those who underwent the Fisher technique showed it 23.1%. This difference was

not statistically significant, with X^2 equal to 0.69 and *p* equal to 0.4. Just 7.7% of patients who underwent Millard procedures had poor alar bases, compared to 0% of patients who underwent Fisher techniques. This difference was not statistically significant, with X^2 equal to 1.01 and *p* equal to 0.31.

DISCUSSION

In 1964, Millard created the rotation advancement procedure to heal unilateral cleft lip, and it has since been the most popular approach[19]. Millard's approach aimed to preserve the philtrum's and Cupid's bow's natural markings while rotating them into their proper locations. This rotation is maintained by the medial advancement of the lateral lip, which also reduces the alar flare and nostril floor breadth. Because to the careful positioning of scars, most of the oblique scar is positioned along the natural line of a philtrum column, while the interdigitations are hidden in the shadow of the nasal floor and nostril sill[19-21].

In the current study, 46.2% of patients who underwent Millard techniques showed good cutaneous line symmetry, but 0% of patients who underwent Fisher techniques did (chi-square=7.5, *p*=0.006). The advantages of the rotation-advancement technique (Millard) over another method (Fisher) are the ease of secondary correction, the smallest amount of tissue waste, and the ability to make changes and manipulations while preserving the primary anatomical and surgical aims[23]. In order to improve the outcome and prevent any flaws, Millard and other surgeons later updated this procedure to be customized based on patient variances[23]. Fisher presented anatomical subunit approximation, a novel method for unilateral cleft lip repair, in 2005. By doing so, the rotation incision that crosses the philtral column on the cleft side can be avoided, and the lateral and medial lip elements can be approximated almost totally along the junctions of the lip and nose anatomical subunits[17]. According to Noordhoff's description, this inferior triangle is positioned above the cutaneous roll to improve roll continuity[17]. This technique creates an ideal line of repair that starts from the cleft-side peak of "Cupid's bow" and moves superolaterally along the lipcolumellar crease to the base of the nose along a line that is usually symmetrical to the noncleft-side philtral column. This minimises the cutaneous scar on the nose and confines it to the cleft-side nostril sill while respecting the anatomical subunits of the lip and nose [17]. Musanzayi *et al.*, used Fisher's technique to perform 101 unilateral cleft lip cases in 2017. They assessed their findings using Steffensen's grading criteria and the Asher McDade esthetic index, and they came to the conclusion that the anatomical subunit approximation technique greatly increases the length of the medial and lateral lip and leaves a tolerable scar[24]. Using eye-tracking technology, Kwong *et al.*, conducted comparative research comparing the Fisher, Millard, and Mohler techniques of cleft lip repair surgery. They came to the conclusion that Fisher repairs were the most aesthetically pleasing, followed by Mohler repairs and Millard repairs[25].

This contrasts with the findings of our study, which indicated that 0% of patients who received Fisher techniques exhibited strong cutaneous line symmetry, compared to 46.2% of patients who used Millard techniques. Additionally, improved vermillion symmetry, lip length, and alar base were the outcomes of Millard procedures. However, only 7.7% of patients had a nice Cupid's bow, compared to 38.8% of patients who used Fisher, and only 7.7% had a good scar appearance compared to 53.8% of patients who used Fisher procedures. Nostril symmetry differences were not statistically significant. According to the study, Millard approaches might be more successful in producing the intended aesthetic results. Total 24 patients of unilateral cleft lip were included in a 2019 study by Patel *et al.*[5], that compared the Fisher and Millard cleft lip repairs using the Steffensen Criteria and anthropometric data. The qualitative results from each technique did not differ significantly. Despite the severity of the cleft, quantitative data indicate that the Fisher anatomical subunit technique might produce more accurate results[5].

By comparing the incision designs of three distinct procedures (Millard, Onizuka, and Fisher), Fujimoto *et al.*, examined the surface area of the portion sacrificed from the lateral lip during primary repair of a "unilateral cleft lip" using three-dimensional measurements[26]. In the current study, only 7.7% of patients who underwent Millard techniques displayed absent signs of scarring (severity), whereas 53.8% of patients who underwent Fisher techniques did (Table 3). The more sacrifice of the lateral lip tissue, the more difficult it would be to correct the secondary lip, even if the sacrifice ratio is not the ideal method for evaluating "unilateral cleft lip" repair approaches[26]. Similar to our results, which showed that Millard had the lowest scar severity, Fisher had the lowest scar severity, and Mohler and Millard had the highest scar severity. Suchyta *et al.*[27], compared the aesthetic outcomes of 21 children with unilateral cleft lip deformity who had undergone surgery using three different techniques (Millard, Fisher, and Mohler) using an online crowd sourcing platform called Mechanical Turk. In all three approaches, the other parameters were about the same[27].

Limitations of the study

The use of subjective grading criteria, possible research design variability, and a lack of attention to long-term results are some of the limitations of our comparison of Millard and Fisher procedures for unilateral cleft lip repair. Small sample sizes and single-surgeon/single-institution biases further hindered the study's ability to generalize its findings.

CONCLUSIONS

In conclusion, there was no discernible change in the anthropometric measurements between the two methods used for unilateral cleft lip repair. However, Millard's technique marginally outperformed Fisher's technique when the two groups were compared using Steffensen grading criteria. According to the study, there are several situations in which applying Millard

approaches might be more successful. For unilateral cleft lip repair, we advise using either the Millard or Fisher anatomical subunit approximation technique; there are no appreciable differences between the two.

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AUTHOR'S CONTRIBUTIONS

Al-Kebsi AA: formal analysis, conceptualisation, data organisation, and clinical and laboratory exams. **Al-Rahbi LM:** critical review, conceptualisation. **Al-Shoaibi:** review, editing. **Al-Shamahy HA:** conceptualisation, critical review. Final manuscript was overseen, examined, and approved in by all authors.

DATA AVAILABILITY

Upon request, the accompanying author can furnish the empirical data used to bolster the findings of the study.

CONFLICT OF INTEREST

There are no conflicts of interest in regard to this project.

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