



Original Article

Surgical results from treating children with syndactyly through the collective effort system at “SOS Hand Recife” between 2005 and 2009[☆]



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ABSTRACT

Objective: to evaluate the results from and parents' satisfaction with treatment for children with syndactyly who were operated at the “SOS Hand Recife” hospital between 2005 and 2009.

Methods: data for assessing the results were gathered from the patients' medical files. The subjective scores, which were ascertained prospectively, were as follows: greater than or equal to 9, good result; between 6 and 8, fair result; less than 6, poor result. The results were analyzed statistically. This study was approved by the institution's ethics committee.

Results: among the 35 cases, 21 (60%) consisted of simple syndactyly and 14 (40%) were complex; 22 (62.8%) were boys and 13 (37.1%) were girls. The complex cases were predominantly among males. The main complications were infection (11.4%), bleeding (11.4%) and pain (8.6%). There were more complications in the complex cases (42.8%) than in the simple cases (33.3%). The mean scores from the parents' subjective evaluations were as follows: 7.6 for esthetics (7.7 in simple cases and 7.3 in complex cases); 8.2 for function (8.6 in simple cases and 7.6 in complex cases); 8.3 for the parents' general satisfaction level (8.6 in simple cases and 8.0 in complex cases); and 85.7% of the parents would recommend the surgery to others while 14.5% would not. A strong association was observed between the specialist's objective assessment and the scores given by the parents ($p < 0.05$).

Conclusion: the surgical results from treating syndactyly presented differences between the simple and complex types, even though the parents' esthetic evaluations and satisfaction were similar.

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Resultados cirúrgicos do tratamento de crianças portadoras de sindactilia operadas em sistema de mutirão no SOS Mão Recife entre 2005 e 2009

R E S U M O

Palavras-chave:

Deformidades congênicas da mão
Sindactilia
Retalhos cirúrgicos
Criança

Objetivo: avaliar resultados e satisfação dos pais quanto ao tratamento de crianças portadoras de sindactilia operadas entre 2005 e 2009 no Hospital SOS Mão Recife.

Métodos: foram coletados, nos prontuários, os dados para avaliação dos resultados. Os escores subjetivos, verificados prospectivamente, foram: igual ou superior a 9, bom resultado; entre 6 e 8, resultado regular; abaixo de 6, mau resultado. Os resultados foram analisados estatisticamente. A pesquisa foi aprovada pelo Comitê de Ética da Instituição.

Resultados: dos 35 casos, 21 (60%) foram sindactilias simples e 14 (40%) complexas; 22 (62,8%) eram meninos e 13 (37,1%) meninas. Houve predominância masculina nos casos complexos. As principais complicações foram: infecção (11,4%), sangramento (11,4%) e dor (8,6%). Ocorreram mais complicações nos casos complexos (42,8%) contra 33,3% nos simples. A avaliação subjetiva dos pais revelou: quanto à estética, média de 7,6, porém com média de 7,7 nos casos simples e 7,3 nos complexos; na função, a média foi de 8,2, 8,6 e 7,6, respectivamente, nas simples e nas complexas; em relação ao grau de satisfação dos pais, 8,3 (geral), 8,6 e 8 respectivamente; sobre a possibilidade de os pais recomendarem a cirurgia a outros, 85,7% recomendariam, contra 14,3% contrários. Foi observada forte associação entre a avaliação objetiva do especialista e os escores atribuídos pelos pais ($p < 0,05$).

Conclusão: os resultados cirúrgicos da sindactilia apresentam diferenças entre os tipos simples e complexo, apesar de o aspecto estético e a satisfação dos pais serem semelhantes.

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Introduction

Hands perform important sensory and dynamic functions. Congenital or acquired hand diseases may significantly affect humans' professional abilities and social lives. Among the commonest congenital hand diseases is syndactyly, which may account for almost half of such abnormalities. Its incidence is approximately one case in every 2000–3000 live births.^{1–5} Approximately 41% of these cases are bilateral^{3–5} and there is often a family history of such cases.¹ Syndactyly causes not only a cosmetic defect but also joint contractures, given that the skin that connects the phalanges to the joints is located at several levels and is frequently poorly positioned.⁶

The treatment for children with syndactyly is surgical and its aims are to improve the appearance and function of the hand and to avoid progressive deformity in the developing human being. The operation is generally performed when the child is around four years of age. The older the child is, the greater the hand dysfunction is and the longer the rehabilitation time needed will be. Conventional surgical treatment for syndactyly of the hand is performed using various plastic surgery techniques, generally including use of skin flaps. The problems with this treatment include trophic alterations in the transferred flaps and trauma in the donor area. The surgical treatment may vary according to the type of syndactyly, i.e. whether it is simple or complex, and also whether it is partial or complete. The results vary as a function of greater or lesser complexity of the syndactyly. They are worse when bone structural alterations are present.^{6–15}

External fixators for increasing the skin area, with the aim of avoiding use of flaps, have been used since 1979 and have presented evolution in their technical aspects and results.⁶

Although most cases of syndactyly are congenital, acquired cases also exist, frequently caused by burns. Likewise, release of fingers is surgical and requires appropriate plastic surgery techniques.^{15–17}

Evaluations on the results from surgical treatment of syndactyly of the hand are usually done based on the clinical findings.⁷ Nevertheless, images obtained through computed tomography may aid in making the evaluation more systematic.¹⁸

Surgical treatment for congenital or acquired syndactyly is carried out at plastic surgery or hand surgery services, on an elective basis. Good results from surgical treatment of congenital syndactyly, without functional limitations of the hand, are reported in around 60%–80% of the cases. Nonetheless, esthetic abnormalities, hypertrophic scars,¹⁹ hyperpigmentation of the skin flap used and possible flexion of the finger in contracture have been reported.²⁰ The cosmetic and functional results are generally excellent in simple cases.²¹ In complex cases, the postoperative prognosis depends on the severity of the bone, tendon or joint abnormalities.²²

There is a scarcity of reports on the surgical results from treating syndactyly of the hand. We only found two case series in the Brazilian literature, which used different techniques and presented limited numbers of patients.^{7,8} In this regard, reporting on the results from a larger series with different types of syndactyly and different possibilities for surgical techniques is justified. In addition, the results reported in the present study are from patients who were operated under

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