CASE REPORT

Improving children’s cooperation with tracheotomy care by performing and caring for a tracheotomy in the child’s doll—a case analysis

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1. Introduction

A tracheotomy in a child can be a life saving procedure, however, caring for a child with a tracheotomy is a major burden on the parents and traumatic for the child. Especially difficult is the daily care of suctioning, cannula and tie changes. These daily procedures are painful and unpleasant but are necessary to prevent cannula plugging and decannulation, potentially fatal complications. The indications for pediatric tracheotomy have been changing. The majority of pediatric tracheotomies is performed for chronic disease and is required for longer periods of time [1]. Home care is essential for treating these children [2]. In order to assure compliance with treatment forceful holding of the child in order to perform suctioning and cannula changes is needed.

Much attention has been given recently to the psychological impact of painful procedures in children and strategies that can reduce the chil-
dren’s distress. An example is the popular approach to the common problem of repeated needle sticks by distracting the child [3]. The parent is usually the coach and a game or toy is the child’s distraction media. Objective data is accumulating regarding the short and long term benefits of these behavioral interventions [4].

We report a case where a novel approach was used to alleviate a 2-year-old child’s distress with tracheotomy care. A mock tracheotomy was performed on the child’s favorite doll and she was taught to care for the doll’s tracheostomy. This strategy resulted in reduced stress and greatly improved compliance with her tracheostomy care.

2. Case report

A 2-year-old girl with Neurofibromatosis type 1 and a 1 year history of progressive stridor and swallowing difficulties was referred to our department for investigation. Direct Laryngoscopy and a biopsy revealed a plexiform neurofibroma. MR imaging showed it to involve the right ary-epiglottic fold, false cord and para-glottic space. CO₂ Laser tumor debulking was performed. Following the procedure, severe airway obstruction appeared and a tracheotomy was performed to secure the airway.

Initial care of the tracheotomy including suctioning and tie changing resulted in severe emotional distress of the child. When the nursing staff or parent even approached with the suction catheter the child would cry and physically resist as much as possible. Force was needed which further increased the child’s distress.

A novel approach was attempted. One week post-operatively and before the first cannula change a mock tracheotomy was performed on the child’s favorite doll. The child was then taught to suction the doll’s tracheostomy tube and change the cannula and ties (Fig. 1). At this point the caregiver would perform tracheotomy care while the child would be caring for her doll. Immediate reduction of the child’s distress was observed and compliance with treatment was achieved. This improved behavior and tolerance to tracheostomy care has continued during the past year of follow-up.

3. Discussion

Postoperative tracheotomy care is an essential component in preventing complications in children. Increasing compliance to treatment and reducing a child’s distress surrounding tracheostomy care is an important goal. This is the first report to our knowledge directly confronting the problem and suggesting a creative solution. Distraction by playing with games and toys has been shown to be effective in children undergoing painful procedures. Dolls have been used to alleviate stress prior to invasive procedures in children such as gastrointestinal endoscopy [5]. Only one report suggests the use of a doll that underwent mock surgery in children following limb amputation [6]. The use of the doll helped the child understand the amputation, physical limits, prosthetic care and body image.

Children use play as an expression of their understanding of the world. Play in children serves as a mode of expression through which anxiety and aggression can be displaced. Play not only displaces feelings but also transforms them for greater adaptation [7,8]. ‘Play therapy’ is today a common psychological and psychiatric treatment technique in infants and children. ‘Medical play’ is a specific domain of therapeutic play, which is geared toward addressing the fears and misconceptions of medical procedures. For the hospitalized child, this therapeutic play establishes a common ground between home and hospital, providing an opportunity to regain a sense of autonomy and mastery. The use of dolls, stuffed animals or puppets that have the same or similar medical diagnosis as the pediatric patient, increases the child’s understanding of his or her experiences and promotes communication between the child and hospital staff. Puppet and dolls therapy is most often used when direct preparation techniques have failed [9].
This case exemplifies the importance of increasing the child’s cooperation with tracheostomy care. Improved compliance may prevent life-threatening complications such as cannula plugging and decannulation. Relief of distress surrounding tracheostomy care may improve the child’s wellbeing. We suggest using the child’s doll to alleviate the distress surrounding tracheostomy care.

References