Pain management in children

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Introduction

In 2020, less than three in ten (29.8%) children in England saw an NHS dentist.[1] The lack of dental access during the COVID-19 pandemic, coupled with parents' reluctance to take their children to the dentist, has amplified the needs of those seeking treatment.

Significant numbers of children first attend a dentist when suffering with dental pain. In a busy dental practice, emergency appointments can often be time limited, making the treatment challenging for less experienced colleagues. These constraints, coupled with a lack of accurate diagnosis, can lead to inappropriate pain management resulting in a child that continues to have a symptomatic tooth and disgruntled parents.

Causes and diagnosing pain

One of the most common causes of child dental pain is pulpal pathology secondary to dental caries.[2] To achieve a good result in these cases, practitioners need to be both confident and competent in selecting and undertaking the most appropriate treatment for carious primary molars.

Pulpal disease can be divided clinically into three phases: pulpitis with reversible symptoms, pulpitis with irreversible symptoms and a dental abscess.[3] The three stages are a continuum ranging from mild pulpal inflammation to pulpal necrosis.[2] Correct assessment of the extent of any pulpal pathology, will allow the clinician to achieve the most appropriate treatment outcome.[2] Radiographs are fundamental in aiding that assessment with bitewing radiographs being recommended for all children aged four and above.[4]

Alleviating pain

Children are not always reliable when reporting the severity of pain and are often unwilling to give the full picture. Consequently, a detailed dental history needs to be undertaken alongside a thorough dental examination. The treatment provided during an emergency appointment very much depends upon the diagnosis and the child's ability to cope.[2] Practitioners want to be confident that the child will leave the surgery pain free but selecting the least invasive management strategy to minimise future anxiety towards dental treatment is a fine balance.

Is it reversible pulpitis, irreversible pulpitis or a dental abscess? What are the treatment outcomes for each diagnosis in the short term and long term? Hand excavation with the placement of a temporary corticosteroid dressing in an emergency will not always render the tooth asymptomatic. Parents should be warned of the chance of residual pain whilst waiting for definitive treatment for the affected tooth. If vital pulp therapy is indicated and provided the child is cooperative, all pain from the tooth can be alleviated during the emergency appointment. Where a dental abscess has been diagnosed and an extraction is indicated, the decision to proceed will depend on the child's level of cooperation. Is it possible to provide this treatment on the same day, or better to delay treatment and help acclimatise the child?

Antibiotics are only indicated where there are signs and symptoms of systemic involvement or spread of infection, and not in cases of irreversible pulpitis. Correct diagnosis of the presenting dental complaint will determine the appropriate treatment.

Consequence of misdiagnosis

A lack of time and a lack of confidence or training in managing children can create a toxic cocktail that may bubble over into a complaint when mixed with overanxious parents. It is tempting to prescribe antibiotics instead of creating a definitive treatment plan for the patient. Inevitably the child returns in worse pain with possibly a more uncooperative patient. There are often multiple carious lesions to be managed but without radiographs it may become difficult to plan treatment or advise on prevention to avoid future emergency attendances.

Where a deciduous tooth has cavitated, the likelihood of pulpal involvement is high especially if a marginal ridge is involved. Patching teeth with glass ionomer restorations and hoping for the best is not a good recipe for pain relief, since in a busy practice the patient can end up being double booked again, creating further pressure or compromised care for the child. Scheduling longer appointment times for children in pain promotes empathetic care that is also longer lasting.

In summary

As pandemic restrictions ease, the number of paediatric patients attending our practices will increase. The time spent away from dental services, coupled with long hospital waiting lists, only adds to the pressure for practitioners to treat youngsters in pain. Before treating them, take the time to obtain the appropriate history and radiographs, correctly diagnosing and managing your patient's pain to avoid prolonged discomfort. In doing so, you will minimise potential complaints from parents and possible future loss of patient co-operation. To achieve these aims, the practitioner may well need to spend time acclimatising patients and educating parents about oral health and the importance of regular dental check-ups to prevent the reoccurrence of dental disease. ◆

Top tips

- → Choose the correct procedure to alleviate the child from pain. Effective emergency management keeps complaints at bay
- → Bitewing radiographs are fundamental in aiding diagnoses and treatment outcome for any child in pain
- → Antibiotics are only indicated when there are signs and symptoms of systemic involvement or spread of infection

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