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Treatment of diseases accompanied by throat irritation and pain

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Pathogenetically, prescription of local action drugs containing a wide spectrum antiseptic is reasonable for the upper respiratory tract diseases accompanied by throat irritation and pain. It should be noted that such drugs are very popular among parents; however, most of these drugs may have a range of side effects, which considerably complicate their use in children. That is why the right choice of local action drugs for the acute inflammatory diseases accompanied by throat irritation and pain is a guarantee of treatment efficacy and high compliance.
This article examines pharmacological qualities of an antiseptic-containing local action drug permitted to use in children over 4 years of age.
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Some of the most frequent complaints at upper respiratory tract diseases – throat irritation and pain – are manifestations of acute pharyngitis, tonsillitis and laryngitis. In a range of cases these symptoms negatively affect children's condition, nutrition and sleep quality; that is why it is very important to start timely, adequate and safe treatment. Despite the fact that this pathology has viral etiology in 80% of cases [1, 2], treatment of these diseases still involves antibacterial drugs of systemic spectrum [3-5], which, obviously, is not justified in most cases. That is why it is justified to use local action drugs in pediatric practice.
The use of local action drugs containing wide action spectrum antiseptic is pathogenetically justified for the diseases accompanied by throat irritation and pain.
Antiseptic components may be represented both by phytogenic substances – essential oils, which have anesthetic, coating and other effects – and synthetic preparations. The prescription of drugs containing local anesthetics is justified in a range of cases to reduce intensity of painful sensations.
However, most drugs permitted to use in pediatric practice have a range of side effects and restrictions.
Thus, many components of drugs, particularly, antiseptics, have an intense irritating effect on mucous tunics.
Such side effects as numbness and burning of mouth cavity mucous tunics must always be kept in mind when using drugs with anesthetic effect. Moreover, overdose may lead to systemic action.
It should be noted that local action drugs are a very popular choice for the symptoms of throat irritation and pain among parents; this dictates the need in choosing a safe and effective drug for use prior to medical examination.
Adequate choice of local action drugs for the mentioned type of diseases is a guarantee of not only treatment efficacy, but also of high compliance.
This article presents a description of a local action drug Septolete Neo for the diseases accompanied by symptoms of throat irritation and pain.

The drug's composition and description. The drug's active component is cetylpyridinium chloride [6].

Cetylpyridinium chloride is a quaternary ammonium compound antiseptic, cationic surfactant; this explains high superficial activity and easy penetration into the not easily accessible hollows of the oropharyngeal mucous tunic. Mechanism of action consists in the penetrability increase of the microbial cytoplasmic membrane. The antiseptic has bactericidal effect against gram-positive and, to a lesser degree, gram-negative bacteria and antifungal effect, particularly, against *Candida* genus fungi. Moreover, this antiseptic is effective against a range of viruses.

Thus, the aforementioned drug is a wide action spectrum medicinal agent; it is active against most bacteria, fungi and viruses, which induce inflammatory infections of the upper respiratory tract. Thus, indications to use of this drug are: acute pharyngites, tonsillites, laryngites and other inflammatory infections of the upper respiratory tract accompanied by the feeling of throat irritation and pain.

Comparison with other local action drugs. Most local action drugs are highly effective; however, they may have a range of side effects; this complicates the use of such drugs in children.

The cetylpyridinium chloride drug does not contain components irritating mucous tunics, which is why it does not cause unpleasant subjective sensations. Unlike most antiseptics contained in the local action drugs, cetylpyridinium chloride has a wide action spectrum; this makes it possible to use for inflammatory diseases of upper respiratory tract of any etiology. Moreover, Septolete Neo is produced in the form of lozenges; their convenience for use in children is an obvious advantage over other forms of presentation.

The main components of the local action drugs for symptoms of throat irritation and pain are analyzed below.

Amylmetacresol, hexetidine and 2,4-dichlorobenzyl alcohol are the most widely used antiseptics; they have a wide action spectrum, but often lack antiviral activity. Moreover, hexetidine may cause emesis at ingestion [6], which is why the use of drugs based on the mentioned antiseptic requires certain abilities from a child – to hold breath and not to swallow the drug.

As was mentioned above, the drugs containing local anesthetics must be prescribed to children with care. Most local drugs contain lidocaine hydrochloride, which may cause numbness and feeling of burning of mouth cavity and tongue mucous tunics [6].

A range of preparations cause dryness and burning of mucous tunics: benzydamine hydrochloride – preparation of the group of non-steroid anti-inflammatory substances; fusafungine (antiseptic), ethyl alcohol or its derivatives [6]. Several sprays contain ethyl alcohol as a disinfectant and sometimes as an adjuvant.

The drug administration mode, i.e. the form of presentation, is crucial. Thus, due to the low compliance level, the use of drugs in the form of sprays or solutions may be rather complicated in children; there is a risk of aspiration in case the drug is produced in the form of sweet drops. In terms of safety, the use of lozenges is the most justified in children. It should also be noted that prolonged sucking of a lozenge leads to active salivation and, thus, to a prolonged influence of active components on mucous tunics; this determines the drug's efficacy to a considerable degree. Septolete Neo is produced in the form of lozenges, which makes it possible to recommend this drug to use in children.

The drug's safety. The risk of side effect development or overdose in case the cetylpyridinium chloride lozenges are used is minimal. The main contraindications to their use are associated with the increased sensitivity to the drug's components, in particular, to beeswax. The drug should not be prescribed in case of open wounds in the mouth cavity as well, as cetylpyridinium chloride delays wound surface healing. The lozenges contain maltitol (ca. 1g per lozenge) and insulin required for metabolism; however, glycemic index is low due to the low rate of hydrolysis and absorption in the gastrointestinal tract, which is why it is possible to prescribe these lozenges to pancreatic diabetes patients, as they are less dangerous than analogs, which contain a big amount of carbohydrates. Nausea and emesis may occur in rare cases [6].

Intake of the lozenges with milk should be avoided, as milk reduces antiseptic activity of cetylpyridinium chloride.
The drug is contraindicated to children under 4 years of age.
Posology and administration. The lozenges should be sucked slowly until complete dissolution, 1 lozenge every 2-3 hours.
Children over 4 years of age are recommended to take up to 4 lozenges per day; at the age of 10-12 – up to 6 lozenges per day. Children over 12 and adults are recommended to take up to 8 lozenges per day [6].
Lozenges should not be taken immediately prior to food intake and with milk.

Conclusion

Convenience of use, safety and efficacy of the drug's active components and easy attainment of compliance make it possible to recommend Septolete Neo as a local action drug for acute inflammatory upper respiratory tract diseases accompanied by throat irritation pain in children over 4 years of age.

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