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Rickets awareness among parents in Jeddah

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Abstract: *Rickets is a disease that affect children and cause permanent deformities and it could lead to serious complications.In this research we discuss the parents awareness of Rickets in Jeddah city. Questionnaires were distributed to 300 parents from Jeddah city to measure their knowledge about the disease. 70% of parents does not know how to prevent the complications of the disease.Raise the parents awareness about rickets through various channels of communications is recommended to avoid permanent bone deformity.*

Keywords: *Rickets, parents, Jeddah*

Introduction

Rickets is a disease affecting growing children due to disorder deficient mineralization of newly formed bone matrix due to vitamin D deficiency. Rickets potentially leads to fractures and deformity. The predominant cause is a vitamin Ddeficiency, but lack of adequate calcium in the diet may also lead to rickets. Many parents don't know very well about rickets and the hazards of thedeformity that will stick with their children till the end of their life. The current study will measure the awareness of parents about rickets in an attempt to introduce help to prevent this disease.

Background

Rickets is defective mineralization or calcification of bones before epiphyseal closure due to deficiency or impaired metabolism of vitamin D, phosphorus orcalcium, Vitamin D is required for proper calcium absorption from the gut. Sunlight, especially ultraviolet light, lets human skin cells convert vitamin D from an inactive to active state.

In the absence of vitamin D, dietary calcium is not properly absorbed, resulting in hypocalcaemia, leading to skeletal and dental deformities and neuromuscular symptoms. Foods that contain vitamin D include butter, eggs, fish liver oils, margarine, fortified milk and juice, portabella and shiitake mushrooms, and oily fishes such as tuna, herring, and salmon.

If the disease left untreated it may lead to some deformitieslikecurvatureof the spine (kyphosis, lordosis, and scolyosis), skull bosing, genu varum, genu valgum, hareson's groove, dental problems and tetany. For the prevention of the complications of the disease it should make sure that child obtain a healthy,balanced diet rich in calcium and vitamin D also to spend some time outside in the sun.

Problem

Rickets is an unnoticeable in the early stages. In patients with very advanced disease, however, the bony changes may be permanent. Outcomes for children with nutritional rickets are excellent, especially if diagnosed early. Appropriate supplementation with calcium and vitamin D will lead to healing of the bony defects within days to months.

Objectives

Primary objective: The main purpose of this research is to measure the awareness of parents about rickets.
Secondary objective: Providing data that helps parents to prevent complications of ricketsthat could happen to their child.

Methods

A random sample is chosen that include 300 parents from Jeddah city, self-administered questionnaire were distributed to identify the level of knowledge of parents about rickets.

The questions are:

- Do you know what Rickets is?
- Do you know the symptoms of Rickets?
- Do you know how to prevent Rickets complications?
- Is the disease hereditary?
- Do you think that there is a treatment for the disease?
- Do you have a relation to someone that suffers from the disease?
- Do you know what the causes of the disease are?
- Do you know what are the malformations caused by the disease?
- Do you think that surgical operations sufficient to modify the malformations?
- Do you think that the disorder is related to vitamin D deficiency?

Results

The results that show the amount of knowledge of parents about the disease is shown in this graph:

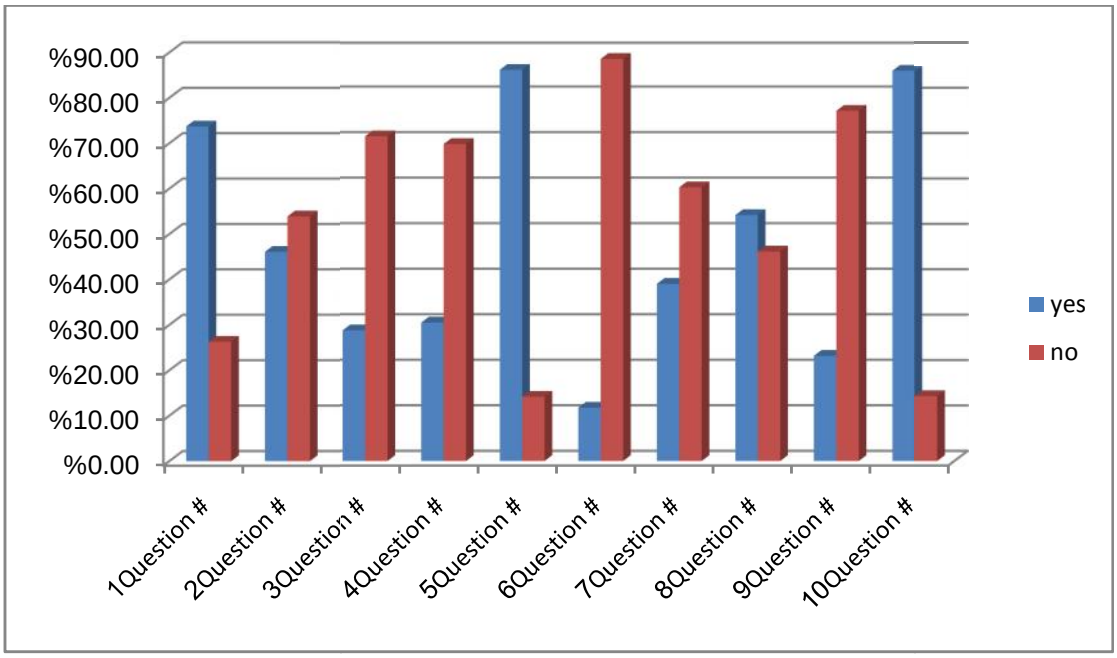

Figure.1: show the knowledge amount of parents about the disease

Discussion

Rickets is a bone disorder caused by a deficiency of vitamin D, calcium, or phosphate. Rickets leads to softening and weakening of the bones and is seen most commonly in children 6-24 months of age. Vitamin D insufficiency is increasingly being recognized as an under-detected health risk for people of all age . Although it can occur in adults,but the majority of cases occur in children with severe malnutrition, predominantly it happen in Dark skinned children.

In addition to defective skeletal maturation vitamin D deficiency causes severe muscle weakness and muscle aches and pains, which can have devastating consequences to the child health. Obstructing sunrays have been mentioned as a risk factor for vitamin D deficiency rickets.Hypocalcaemia is more common in initial stages of nutritional rickets, especially during rapid growth period. The current study showed that there is a lack of awareness of parents about rickets especially in its symptoms, causes, and how to prevent the disease, and the possible surgical interventions to repair deformities of the disease. So awareness of parents about the important factors that help in growing a complete bone during childhood should be provided, also aware them to take a good care about their child's life to prevent the complications of Rickets.

Conclusion

There is a lack of awareness of parents about rickets. Awareness of parents about the disease, its causes, deformity and prevention is mandatory.

Recommendation

Raise the parents awareness about rickets through various channels of communications is recommended to avoid permanent bone deformity. As rickets can easily be prevented by eating a diet that includes vitamin D and calcium, as well as spending some time in sunlight, it is encouraged to provide these elements to children during early life.

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