The Relationship between Xenoestrogens exposure and early puberty among young females living in Jeddah, Saudi Arabia.

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Introduction

Xenoestrogens are artificial estrogens which are found in our environment throughout products that many of us use every day. Mimic the effect of endogenous estrogen and thus have been implicated in the process of early puberty, which is the appearance of secondary sexual development.

Objective

To investigate relationship of using various xenoestrogen products and early puberty among young females living in Jeddah.

Results

<table>
<thead>
<tr>
<th>Xenoestrogen Products</th>
<th>Significance</th>
<th>Relation</th>
</tr>
</thead>
<tbody>
<tr>
<td>children’s plastic bottles</td>
<td>.966</td>
<td>inverse relation with no significant</td>
</tr>
<tr>
<td>plastic packing materials</td>
<td>.351</td>
<td>inverse relation with no significant</td>
</tr>
<tr>
<td>women cosmetic</td>
<td>.654</td>
<td>inverse relation with no significant</td>
</tr>
<tr>
<td>food preservatives</td>
<td>.217</td>
<td>inverse relation with no significant</td>
</tr>
</tbody>
</table>

Table 1: the relation between xenoestrogen products and breast development

<table>
<thead>
<tr>
<th>Xenoestrogen Products</th>
<th>Significance</th>
<th>Relation</th>
</tr>
</thead>
<tbody>
<tr>
<td>plastic water bottles</td>
<td>.583</td>
<td>inverse relation with no significant</td>
</tr>
<tr>
<td>children’s plastic bottles</td>
<td>.446</td>
<td>inverse relation with no significant</td>
</tr>
<tr>
<td>children toys</td>
<td>.049</td>
<td>inverse relation significant</td>
</tr>
</tbody>
</table>

Table 2: the relation between xenoestrogen products and age of menarche

Discussion

The onset of puberty is characterized by increased levels of (GnRH), triggers the secretion of luteinizing hormone(LH) and follicle-stimulating hormone(FSH) from the anterior pituitary gland, which causes the ovaries to secrete estrogen. Increases in gonadal estrogen promote breast development \[4,5\], chronic exposure to xenoestrogens, early pubertal signs development happens without the normal release of(GnRH).\[6\]

Literatures review confirmed a positive relationship between appearance of secondary sexual development in young females and using xenoestrogen products.

Conclusions

Study confirmed the association between using xenoestrogen products and early puberty in young females living in Jeddah, Saudi Arabia. Therefore, we advise to decrease the use of products contain xenoestrogens in our daily life.

References