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Pains during pregnancy

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Abstract

Pains during pregnancy are quite frequently occurring phenomenon. Monitoring the occurrence of pains from the aspect of time and location and possible ways of reducing the pains was the aim of our study. During regular gynecological examinations were followed 356 women who were pregnant the first time. Personal questionnaire, personal history, interview, weight measuring and specific gynecological observation obtained all the required data. Pain was assessed on the basis of self-assessment in pregnant scale of 1 to 10. It was found that the most common pain is back pain in 16 percent of pregnant within the first 20 weeks of intensity from 1 to 4. Between weeks 20 and 30, the number of 42 percent of pain cases occurred. Intensity increased to the level of grade six. This intensity of pain achieved 15 percent of all observed pregnant women. The remaining 85 percent of monitored pregnant women reached the level of pain in the range between grade 2 and 5. After week 30 of the whole pregnancy, we register 66 percent of cases of back pain. In addition to back pain, other pains appeared as well. They were in the lower abdomen, in the pelvis and pubic bone and also numbness and pain in other joints of the body. Rarely appeared headaches and pain in the heart area. This was due to the lack of preparedness and functionality especially of back muscles, weight gains and consequently incorrect postures, ending up hyperlordosis. Given that the pregnancy is significantly limited by the consumption of drugs and some tests (X-ray, magnetic resonance imaging), there increases the importance of training of the muscle system before pregnancy and in the pregnancy, in particular, the dorsal and postural muscles have to be able to accept the increased demands occurring during movement activity and also during the sitting. In addition to specific exercises under supervision, the aerobic movement of low to moderate intensity is recommended and as a means can be used walking, nordic walking and belly dancing. Finally we can confirm that pregnancy is very specific period of women's life and little bit risky, so regular medicine controls are necessary and well educated physiotherapists, chiropractics and fitness professionals are required.

Keywords: *pain, pregnant woman, pregnancy, exercise*

Introduction

Pain is an unpleasant sensory and emotional experience that is associated with actual or potential tissue damage. During pregnancy the pain killers are not recommended (Sechzer, 1968). Currently, the majority of pregnant women at the end of pregnancy underwent the great pain in the lumbar and sacral areas, and also in the lower abdomen. Because of this troubles they are unable to concentrate on their currently doing work. A minority of pregnant women has less pain and they are especially those, who performed pre-pregnancy physical activity. Found in many specialized publications which have presented the results of studies that confirm the lower incidence of pain at regular participants: women who have sufficient quality and strong back muscles. After specific exercises for pregnant women there is a significant reduction in pain and women are able to eliminate it. Pains during pregnancy are quite frequently occurring phenomenon (Varni, Blount, Waldron, Smith, 1995).

Monitoring the occurrence of pains from the aspect of time and location and possible ways of reducing the pains was the aim of our study.

Methods

During regular gynecological examinations were followed 356 women who were pregnant the first time. Personal questionnaire, personal history, interview, weight measuring and specific gynecological observation obtained all the required data. Pain was assessed on the basis of self-assessment in pregnant scale of 1 to 10.

Results and discussion

A large number of back pain during pregnancy is caused by weight gain and volume in the abdomen and concomitant changes in center of gravity (Fig. 1). In addition, the increased weight causes even greater loading for joints, bones and ligaments (Wall, Melzack, 1994). Also, hormonal changes affect the strength and elasticity of tissues and therefore biomechanics of the supporting system of pregnant body is changed. Hormones cause the release of the ligaments that are preparing for the transition of the fetus through the birth canal.



Fig. 1 Pregnant woman in weeks 16, 21, 25, 29, 33 and 37

All these changes together can also trouble a quite healthy body. In the case of already existing risk factors such as obesity, poor posture, overloading or congenital disposal, even a small change can start an avalanche of problems. Once again, we have to accentuate the fundamental mistake - boundless calorie intake in pregnancy. This can cause weight gain from 50 to 100% compared to natural pregnancy increase.

It was found that the most common pain is back pain in 16 percent of pregnant within the first 20 weeks of intensity from 1 to 4. Between weeks 20 and 30, the number of 42 percent of pain cases occurred. Intensity increased to the level of grade six. This intensity of pain achieved 15 percent of all observed pregnant women. The remaining 85 percent of inspected pregnant women reached the level of pain in the range between grade 2 and 5. After week 30 of the whole pregnancy, we register 66 percent of cases of back pain (Fig. 2, Table 1).

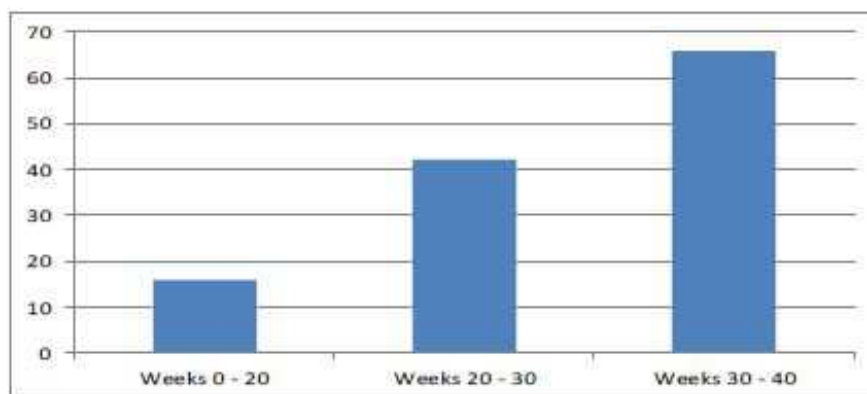


Fig. 2 Increment of back pain in three different periods in pregnancy in percentage

Tab. 1 Contingency table – grossed expected values

	week 10-20	week 20-30	week 30-40	Total
Pain - yes	57 (147.3)	150 (147.3)	235 (147.3)	442
Pain - no	299 (208.6)	206 (208.6)	121 (208.6)	626
Total	356	356	356	1068

$$\chi^2 = \sum_{k=1}^k \sum_{m=1}^m \frac{(N_{ij} - O_{ij})^2}{O_{ij}} = 7680,6$$

Tabulated values for the two degrees of freedom and significance level $\alpha < 0.01$ is 9.210 (Kovář, Blahuš, 1989). So we can clearly declare that it is a statistically significant difference in the incidence of pains in three time periods.

In addition to back pain, other pains appeared as well. They were in the lower abdomen, in the pelvis and pubic bone and also numbness and pain in other joints of the body. Rarely appeared headaches and pain in the heart area. This was due to the lack of preparedness and functionality especially of back muscles, weight gains and consequently incorrect postures, ending up hyperlordosis (Lipton, Tunks, Zoppi, 1990).



Fig. 3 Complex of daily exercises (Internet source)

Above showed exercises (Fig. 3) can be practiced easily and effectively, especially if we follow these basic rules:

- Frequently changing positions from standing to sitting and to lying down
- Practice back as many times as possible
- In case of back pain, something should be backed up and release the lumbar area

The entire series takes about 10 minutes and is quite easy and very effectively relieves the pain. Every exercise should be done until it is pleasant, as many times a day as is possible. Except mentioned exercises, the basic aerobic activity is very helpful like walking, nordic walking and belly dancing.

Conclusions

Given that the pregnancy is significantly limited by the consumption of drugs and some tests (X-ray, magnetic resonance imaging), there increases the importance of training of the muscle system before pregnancy and in the pregnancy, in particular, the dorsal and postural muscles have to be able to accept the increased demands occurring during movement activity and also during the sitting. In addition to specific exercises under supervision, the aerobic movement of low to moderate intensity is recommended and as a means can be used walking, nordic walking and belly dancing. Finally we can confirm that pregnancy is very specific period of women's life and little bit risky, so regular medicine controls are necessary and well educated physiotherapists, chiropractics and fitness professionals are required.

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