The connection between dystocia and dysmenorrhoea

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SUMMARY. Eight hundred and eighty women having their first baby were asked whether they had had dysmenorrhoea; 61 per cent had and 39 per cent had not. Eleven per cent of the former had to have forceps, ventouse or caesarean section, compared with twice as many (20·8 per cent) of the latter ($p = 0·001$). Those with severe dysmenorrhoea had a greater need for operative interference (not statistically significant). I suggest, after 21 years of observation, that the level of prostaglandin activity may be different in these women, and that a history of no dysmenorrhoea or severe dysmenorrhoea might be considered as a risk factor for a complicated delivery.

Introduction

SPASMODIC dysmenorrhoea is a common complaint in nulliparae, occasionally leading to absence from work; but the sufferer can be consoled by the knowledge that the pain is likely to disappear following the birth of the first baby, and that dysmenorrhoea, suggesting an ovulatory menstrual cycle, augurs well for the prospect of becoming pregnant. By suppressing ovulation, of course, the pill makes the periods painless. But does dysmenorrhoea exert any influence—for better or for worse—on the nature of primiparous labour? Does it increase or decrease the likelihood of obstetric interference? In an attempt to answer this question I have spent 21 years questioning, observing and recording my experiences of primiparae in general practice.

Method

At the initial antenatal examination, in addition to the usual questions, I asked every expectant mother whether she had had painful periods before her first pregnancy and recorded her reply. Unless she volunteered the information that the pain had been "severe", or only "slight", it was simply recorded as "dysmenorrhoea". I did not ask the mothers to assess the severity of the complaint, which some believe is largely psychological.

When, in due course, the primiparae were confined, I recorded the need—if any—for forceps, ventouse or emergency caesarean section. Because they are performed before the onset of labour, planned caesarean sections had to be excluded; similarly, I omitted vaginal breech deliveries, since forceps—routinely used for delivery of the after-coming head—did not necessarily indicate dystocia.

Results

Out of a total of 982 primiparae available for analysis, 102 had to be omitted. These omissions comprised 10 planned caesarean sections (three for disproportion, two for placenta praevia, one for fibroids, one elderly primipara and three for breech presentation), 33 vaginal breech deliveries and 59 others whose records failed to show the presence or absence of dysmenorrhoea. One third of the 59 occurred in the first of the 21 years, before recording dysmenorrhoea became second nature to me and when conflicting findings seemed to suggest a wild goose chase.

Of the 36 omitted breech cases 19 had had dysmenorrhoea and 14 were non-dysmenorrhoeic; in the remaining three there was no record of the presence or absence of dysmenorrhoea. Thus 880 primiparae remained for analysis. Five hundred and thirty-eight of these (61·1 per cent) had had dysmenorrhoea; the remaining 342 had not.

Sixty-one (11·3 per cent) of the 538 dysmenorrhoeic primiparae required forceps, ventouse or emergency caesarean section, compared with 69 (20·8 per cent) of the 342 non-dysmenorrhoeic primiparae. The difference between the two was statistically significant ($p = 0·001$).

However, the frequency of dystocia needing interference was not inversely proportional to the severity of the dysmenorrhoea. If the mothers with dysmenorrhoea were further subdivided into three groups—(a) 88 who volunteered having only slight pain, (b) 402 with unspecified degrees of pain, and (c) 48 who claimed severe pain—it was apparent that 10 (11·4 per cent) in group (a), 42 (10·4 per cent) in group (b), and nine (18·7 per cent) in group (c) required forceps, ventouse or

caesarean section. The rate for interference in group (b) was thus exactly half the rate in the non-dysmenorrhoeic mothers. But while the increased rate for interference in mothers with severe dysmenorrhoea was suggestive, it was not statistically significant. Yet with further information some listed as unspecified would undoubtedly have qualified for inclusion as severe dysmenorrhoeics. This could possibly affect the statistical significance.

Discussion

In spite of numerous theories, the cause of primary dysmenorrhoea remains undecided, although the consensus of opinion is that prostaglandins play an important part. The same can be said about labour, prostaglandins being used therapeutically both to soften the unripe cervix and to induce labour. It seems reasonable to suggest that the normality and/or abnormality of labour may be linked to prostaglandin activity. Thus the responses found in the above investigation—(a) the significantly higher incidence of dystocia in the non-dysmenorrhoeic primiparae, (b) the lower incidence in slight and unspecified dysmenorrhoeic ones, and the non-statistically significant rise in incidence in severely dysmenorrhoeic primiparae, could be related respectively to (a) low (perhaps too low) activity, (b) normal activity, and (c) high (perhaps excessive) prostaglandin activity.

A basic aim of antenatal care is to anticipate trouble, prevent it if possible, and—if not preventable—to minimize delay in dealing with it effectively when it arises. Primiparae, the subject of the above investigation, lack the guiding benefit of having a previous obstetric history, but they possess the unrecognized advantage of a menstrual history—either painful or painless periods.

Many of the non-dysmenorrhoeic primiparae had quick, easy labours. So did some of those with severe dysmenorrhoea. But is it not reasonable to suggest that primiparae in these two categories might be considered more high-risk, and be confined where the necessary obstetric interference can be provided promptly?

Costs of smoking

In France, sales of tobacco gave the Government an income of nine billion francs in 1974, but in 1976 the cost to the industry of treating smoking-related diseases and handling other problems created by tobacco was 26 billion francs.

Source: Dr R. Masironi of the Cardiovascular Diseases Unit, World Health Organization, *World Health*, October 1980, p. 30.