Pelvic Adhesions

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By J. Glenn Bradley, MD [1]

Pelvic adhesions cause many problems for millions of women. From obstructed tubes associated with infertility, to pelvic tenderness, and painful intercourse, to chronic pelvic pain. Curiously, adhesions can be very extensive, yet relatively silent. They may remain silent indefinitely, or long after the causative event, become symptomatic. The causes of adhesions are multiple but basically the tissue irritation that produces the adhesive process arises from an inflammatory event, or from trauma (i.e. post surgical).

Examples of an inflammatory event would be a tubal infection from a sexually transmitted disease (e.g. Gonorrhea), a post surgery infection, or appendicitis. Chronic "irritation" of the pelvic tissues from a common disease process such as endometriosis, may also incite adhesions. A very significant proportion of symptomatic pelvic adhesive disease arises from previous necessary pelvic surgery (removal of an ovarian cyst would be a good example).

What are "pelvic adhesions" anyway?? In the process of trying to repair injured tissue, a series of normal healing events may cause some structures in the pelvis to become unintentionally "stuck" to another tissue or structure. In a normal healthy pelvis (or the whole abdominal cavity for that matter) this large space is lined with a tissue called peritoneum, which also covers the outside of organs located in the abdomen and pelvis. In an non-injured or irritated state, the peritoneum can be likened to slippery cellophane wrap…. the organs and structures lying immediately adjacent to each other just slip off each other and do not become bonded together. Given a tissue injury, the healing process initiates a sequence of events that can result in a certain tissue becoming "stuck" to its neighbor, and when this happens certain undesirable results occur.

The ovary for example is a very sensitive structure, much like the testis. If as a consequence of an ovarian cystectomy, (the removal of the cyst from the ovary) the ovary becomes "attached" to the pelvic sidewall, or the top of the vagina, the patient may experience persistent pelvic pain and/or painful intercourse. The diagnosis is suspected by a history of ovarian surgery, and subsequent persistent pain or tenderness unrelated to her menstrual cycle.

After a large abdominal incision (e.g. a hysterectomy for large fibroids) the bowel or an associated fatty structure called the omentum may become adherent to the abdominal wall. Adhesions begin to develop within hours of surgery. If by chance it is a loop of bowel, the patient may experience intermittent bouts of crampy pain, perhaps associated with some nausea, bloating, or even vomiting. The intestinal symptoms are related to some degree of bowel obstruction that inhibits the passage of the bowel contents or gas through the partially obstructed area. When the obstruction is severe then the patient will be very ill with nausea, distention and vomiting, and may not be passing any gas rectally. Xray studies may confirm the severe obstruction, and treatment may require decompression of the bowel by means of a tube passed through the stomach to the intestine, or even exploratory surgery.

More often in my experience, the symptoms are troublesome and annoying, and the obstruction is not severe enough to make any of the Xray tests informative. Often the patient will be sent to the...
gastroenterologist, and endoscopic evaluation of both the upper and lower bowel will be performed. Frequently, the diagnosis is "irritable bowel syndrome". It should be remembered that intra-abdominal and pelvic adhesions rarely if ever show up on X-ray or ultrasound. Unfortunately, every time an abdominal incision is performed, the risk is present for recurrent adhesion problems. The good news is however that most patients will not develop serious post-operative adhesions causing further problems. Those unfortunate to do so may ultimately undergo repeated surgeries, always hoping that "this will do it!!"

Does everybody develop adhesions?? No they do not, but it is not understood why one person develops very extensive adhesions, and the next individual none at all. The nature of the traumatic tissue event, the duration of the inflammatory insult, the nature of the preceding surgery, the operative technique of the surgeon, and the unknown healing characteristics of a given individual all interplay in the final outcome.

What can be done to minimize pelvic adhesions from forming? Early treatment of an infectious process if identified, utilization of safe sex practices to minimize the transmission of sexually transmitted disease, meticulous surgical technique to minimize unnecessary tissue trauma, and perhaps using barrier products where appropriate. The latter may be helpful in reducing the extent or severity of the post operative adhesion development.

What to do if symptomatic adhesions develop, what are the patients options? The first option in any situation is don't do anything. Pain is a relative experience, and the degree of severity will vary from individual to individual. Minor, or even moderately severe discomfort can often be lived with, or controlled by medication, acupuncture, or medical hypnosis. Not infrequently pelvic pain is not helped by conventional treatment such as hormones, pain medicine, or even surgery. In those circumstances, non-conventional treatment with acupuncture or hypnosis can sometimes be very helpful.

Given significant symptomatic pelvic adhesions being suspected from the history and physical exam, a thorough workup is indicated, which may include special xray studies and ultrasound. Ultimately, laparoscopy may be utilized to allow visual inspection of the intra-abdominal organs. What to do surgically depends on the findings. If an ovary is bound down with adhesions from previous surgery, the extent of the adhesive process may indicate a simple cutting of the adhesions or if necessary, removal of the ovary. If the patient has completed her fertility requirements, and if the pelvic adhesive process is very extensive, a complete hysterectomy with removal of both tubes and ovaries may be indicated. Obviously, the patient and her gynecologist need to have had a very comprehensive and detailed discussion about what might be encountered, and what options might be exercised.

What about abdominal wall adhesions resulting from prior abdominal surgery? These can usually be taken down laparoscopically, thus minimizing tissue injury, as opposed to a conventional large incision. Multiple tiny incisions may be necessary in order for the surgeon to see well, and from different angles the area of dense adhesions. Nonetheless, several tiny 1/2 inch incisions are far less uncomfortable than a conventional laparotomy incision.

If the adhesions are extensive, and the patient has undergone previous adhesion surgery that failed, I have taken an unorthodox approach to such individuals. Because adhesions begin to form almost immediately, along with the healing process involving the raw anterior abdominal wall, I have in special situations recommended a repeat laparoscopy in one week. At this point, the "new" adhesions are flimsy, soft, do not contain a blood supply, and can be swept away with minimal tissue injury, compared to a conventional adhesiolysis (freeing the adhesions surgically) of old adhesions that are dense, very adherent, and bloody. This is performed in an outpatient setting, and usually takes but a few minutes, compared to the time involved dealing with extensive, dense old adhesions.

It is important that patients inquire about their surgeon's experience with extensive adhesions, because what might be viewed as "not possible laparoscopically" by one gynecologist, may be very familiar territory for another. Because bowel may be intimately involved with the adhesive process the patient has to be aware that the worst case scenario may require bowel surgery, and a conventional laparotomy incision.
Pelvic adhesions can be a serious detrimental quality of life issue. Some patients are total pelvic cripples because of this problem. Once formed, they do not disappear with time. If you are suffering from some of the medical complaints outlined earlier, do consider a consultation with an experienced laparoscopic gynecologist and hopefully your adhesive problems can be solved.

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