Original Article

Chronic Abdominal Wall Pain: Prevalence in Out-Patients

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Abstract

Background: Chronic abdominal wall pain (CAWP) is a frequent and confusing pain. It often leads to many diagnostic tests and sometimes some surgeries before an accurate diagnosis is achieved. Numerus had reported that patients with pain in abdominal wall are frequently treated like some one who is suffering from visceral pain.

Methods: This was a cross-sectional study that is done in Isfahan in a governmental clinic. In this epidemiological study we were evaluating the prevalence of chronic abdominal wall pain. The region of the pain, patient's sex, patient's age and their associated problems such as psychiatric disorders, obesity, IBS, functional bloating has been checked in patients.

Results: Thirty patients with abdominal pain originating from the abdominal wall were observed between 998 patients in a period of 3 months (3% of patients who were referred to gastroenterologist used to have CAWP).

Conclusion: There are many reasons for chronic abdominal wall pain such as nerve entrapment or lesions of surgeries. Some times this problem makes patients to push the painful area and some times we could clearly see the hematoma in that region. For treating CAWP we can use a simple method and its injection. Pain could easily be relieved after one or more that one injection.

Keywords: Abdominal pain, prevalence, Iran (JPMA 62: S-17; 2012).

Introduction

Chronic abdominal wall pain (CAWP) is a frequent and confusing pain. It often leads to many diagnostic tests and sometimes some surgeries before an accurate diagnosis is achieved. Numerus had reported that patients with pain in abdominal wall are frequently treated like some one who is suffering from visceral pain.[1-10]

Abdominal wall pain could have many reasons such as peritoneal or abdominal wall lesions, T7-T12 radicular lesions, thoracic lateral cutaneous nerve entrapment, rectus nerve entrapment, diabetic radiculopathy.[11,12]

CAWP diagnosis is based on history and physical examination. Patients are able to point with her or his finger tip to the area of maximal tenderness. "Carnetts" sign is referring to increased local tenderness during the muscle tensing.[1]

During this maneuver rectus abdominis muscle will be tight and pain from the entrapped nerve will be increase. (The sensitivity and specificity of carnett's sign have not been well established yet).[13]

The epidemiology of CAWP is unknown. In most studies diagnosis was established in middle aged patients but there are some reports about children and there was no clear gender prediction.[13]

Abdominal wall pain has been diagnosed in 10-90% of patients with unknown cause of abdominal pain.[12] For example in a report a gastroenterologist had diagnosed 33 CAWP in 43 (74%) patients with unexplained abdominal pain. But in another study 17 of 156 (11%) diagnosed to have CAWP.[14,15]

Hall and Lee had estimated that about 15% of patients how referring to a pain clinic for non specific abdominal pain were suffering from CAWP.[16]

Because there is not sufficient data about CAWP we had done this study to evaluate the prevalence, gender prediction and associated problems.

Methods

This was a cross-sectional study that is done in Isfahan in an academic clinic, (this was a referral tertiary care clinic). In this epidemiological study we were evaluating the prevalence of chronic abdominal wall pain between patients who were referred to clinic.

Carnetts maneuver was done for diagnosing all patients who were suffering from abdominal pain. Patient is asked to perform a straight-leg-raising maneuver (patient must raise both legs and head at the same time and examiner finger is on the painful region).

The region of the pain, patients sex, patients age and their associated problems such as psychiatric disorders, obesity, IBS, functional bloating has been checked in patients.

Patients who were diagnosed to have chronic abdominal wall pain by a gastroenterologist were included to our study.

Results

Thirty patients with abdominal pain originating from the abdominal wall were observed between 998 patients in a period of 3 months (3% of patients were diagnosed to have CAWP).

Between these chronic abdominal wall patients 23 were female and 7 were male.

Patients were between 23-66 years old (mean age was 39.3).

Ten patients had reported abdominal pain in left upper quadrate, 8 patients were suffering from abdominal pain originating from right upper quadrate, 4 patients had pain in epigastric region, 3 patients had reported the pain in right lower quadrate, 2 patients were suffering from pain in left lower quadrate, 2 other patients had pain in left subchondral area and the last patient had pain in right periumblical region (Figure).

Obesity was observed in 15 patients (50%), 5 patients (16.7%) had IBS, MDD was observed in 10 patients (33.3%), 6 patients had GERD (20%), Functional Bloating was seen in 3 patients (10%), 5 patients had bad sitting posture (16.7%),

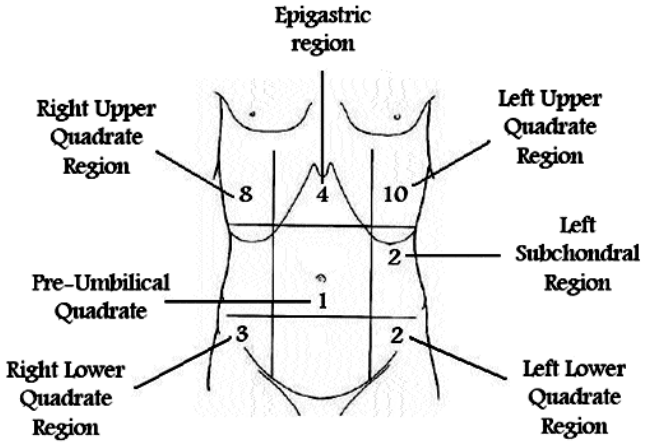

Figure: Pain region.

one of patients had hyperthyroidism (3.3%), one of them had hydatid cyst (3.3%), one of patients had diabetes (3.3%), one of the patients was milking mother (3.3%), 1 patient had acute dyspepsia (3.3%), 2 patients were report the pain after lifting heavy things (6.7%), one patient had remove her gallbladder (3.3%) and one of patients had told us that her husband has been dead (3.3%).

Discussion

There are few studies about prevalence of chronic abdominal wall pain. In some of these studies they had report only CAWP patients (they had not report the denominator) for example Mehta and Ranger in 1971 had reported that they had diagnosed 103 patients in 3.5 years but they had not report the percentage of patients.[17] In some other studies such as Shute's study the period of the study was long. He had reported 269 patients who were suffering fro CAWP in 14 years but he hadn't

report the total number of patients that he had visited in this period.[18] McGrady and Marks had reported 45 patients with CAWP in 1988.[19] Gallegos and Holbsley had reported 26 patients with CAWP in 7 years 20. Hershfield had diagnosed 100 patients with CAWP in 1992[4] Greenbaum et al. had reported 79 patients in 5 years[6] and Thompson et al. had reported 16 patients in 1 year.[7] These studies can not show the prevalence of CAWP because the denominator is not mentioned.

But some other studies had reported both diagnosed patients with CAWP and total number of patients so the percentage is available.

Hall and Lee had reported that 15% of patients who were referring to a pain clinic were suffering from chronic abdominal wall pain.[16] In other study Gray et al. had reported that 19 between 67 (28%) were suffering from CAWP.[21] Johlin and Buhac had reported that 68 of 226 (30%) patients were CAWP patients.[22] in 1998 Rubio et al. had

reported that 11% of there patients (17/156) had CAWP[15] and McGarrity et al. had reported in 2000 that 74% (32/43) of their patients were suffering from CAWP.[14]

We had diagnosed 30 patients in 998 (3% of out patients who were visited in a gastroenterology clinic in 3 months diagnosed to have CAWP). Our results are diffrent with reported results about prevalence of CAWP and it may have some reasons. One of the reasons is that our study was done in 3 months and it's one of the shortest studies about CAWP. We had reported our results from all patients who were visited by a gastroenterologist but other studies were reporting their results from pain clinics so their studies have some limits. They could not report the prevalence of CAWP because their denominator is patients with pain who were referring to a pain clinic but we had report out patient referrals and it is another reason.[13]

One of the most prevalent problems which are associated with CAWP is functional gastrointestinal disorders (FGID). Thirteen patients had FGID (IBS, GERD and FB). MDD is an important risk factor for CAWP (10 patients had MDD) and another risk factor is bad sitting posture (16.7% of patients had bad sitting posture).

Treatment of CAWP is simple and patients' pain can be healed with some injections. Mehta and Ranger had used 5% Phenol to treating patients and 71% had complete or partial relief.[17] Ashby had used 1% Lignocaine and it was used intercostally and 67% of patients had completed and 27% had moderate relief.[23] Tung et al. In 1978 had used 0.25% Bupivacaine and 40 mg of Triamcinolone. 75% of patients had 50% pain reduction with this treatment.[24] Broune had used 2% Xylocaine and Triamcinolone then in 62% of patients pain was disappeared.[25]

Shute had used 2% Xylocaine and 40 mg of Prednisolone, with these treatment 210 patients (78%) had cured after single injection and 59 patients (22%) were treated after more than one injection.[18] McGrady and Marks in 1988 had used 6% phenol, 46% were pain free less than a year and 49% were treated after a year.[19] Gallegos and Hobsley had used 1% lignocaine and 25 mg of hydrocortisone then 80% of patients had report complete or partial relief[20] and at last Greenbaum et al. In 1994 had used 0.25% bupivacaine and 40 mg of Triamcinolone then 75% (56 patients) had reported that they had 50% pain relief after single injection.[6]

Conclusion

There are many reasons for chronic abdominal wall pain such as nerve entrapment or lesions of surgeries. Some times this problem makes patients to push the painful area and some times we could clearly see the hematoma in that region. For treating CAWP we can use a simple method and its injection. Pain could easily be relieved after one or more that one injection.

We think a population based study must be done for evaluating the prevalence of CAWP because our sample size is not big enough for reporting the prevalence.

Contribution:

Dr. Peyman Adibi had designed this study, Ali Toghiani had collected datas and both authors had wrote the manuscript.

Authos don't have any conflict of interest.

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