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COMPARISON OF ASPIRATION PLUS MEDICAL TREATMENT THAN MEDICAL TREATMENT ALONE. IN AMOEBIC LIVER ABSCESS.

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ABSTRACT

OBJECTIVE: *To evaluate the therapeutic efficacy of needle aspiration along with anti amoebic drugs than anti amoebic drugs alone in Amoebic Liver abscess.*
STUDY DESIGN: *Comparative, Prospective.*
PLACE OF STUDY: *Medical Ward III, Chandka Medical College Hospital Larkana from January 2006 to December 2007.*
PATIENTS & METHODS: *This comparative, prospective study was conducted in Medical Unit-III CMC Hospital Larkana from January 2006 to December 2007. Total 52 patients were included in this study and were divided into two groups. Group A, included 28 (53.84%) patients and comprised of patients having abscess cavity > 10 cm or smaller abscess but not responding to medical treatment. They were given combined treatment i.e. Needle aspiration along with medical treatment. Group B, comprised of 24 (46.15%) patients who had abscess cavity < 10 cm and were given medical treatment alone. Main outcome measures were abdominal pain, fever, hepatomegaly, resolution of Amoebic Liver abscess on ultrasound, length of hospital stay and any complications, if occur. Follow up was at least up to 06 months.*
RESULT: *Total of 52 patients were included in this study which were divided in two groups. Group A consisted of 28 (53.84%) patients whereas Group B 24 (46.15%) patients. The age ranged from 18-70 years (mean 42.61%). 42 (80.76%) patients were male and 10 (19.23%) were females, male to female ratio was 4.2:1. 48 (92.23%) patients had right lobe involvement while 04 (7.70%) had left lobe involvement. Needle aspiration was successful in 26 (92.85 %) patients and failed to respond in 02 (7.14%) patients. The mean time of clinical improvement was 5.5 and 08 days respectively in group A and B. The hospital stay was shorter in group A than B. The resolution of abscess cavity on ultrasound was rapid in Group A than B and there was no complication noted.*
CONCLUSION: *It is concluded from this study that Needle Aspiration along with anti amoebic drugs are superior than alone anti amoebic drugs for the management of amoebic liver abscess.*

KEY WORDS: Amoebic liver abscess, Hepatomegaly.

INTRODUCTION:

Amoebic Liver abscess is more common than pyogenic Liver abscess and affects 10% of world population. It affects male gender predominantly as compared to female gender [1]. It is more common in third world countries with poor sanitation, contaminated drinking water and unhygienic conditions In Pakistan, Amoebic liver Abscess is still a serious problem[2,3].

Amoebiasis is the infection caused by Entamoeba histolytica, a parasite capable of invading intestinal mucosa leading to dysentery and if left untreated may cause extra intestinal amoebiasis, most commonly the liver abscess[4].

The presentation could be right hypocondrium pain, fever with or without rigors, nausea and vomiting. It may be associated with complications like rupture in pleural cavity or peritoneum and leading to more toxic condition of acute abdomen. Single abscess is more commonly Amoebic in etiology than pyogenic, which is mostly multiple[4,5]. Ultrasonic examination and CT scan of liver are the main tool of diagnosis for the liver abscess[6,7,9]. Many clinicians believe that chemotherapy alone cures the disease and Percentaneous drainage under ultrasound or CT guidance has been reported as alternative treatment [8]. In Pakistan, patients usually present with large abscess and have toxic features. Therefore

to prevent complication or patients who do not respond to medical treatment, needle aspiration along with medical treatment is the better option[2].

The present prospective study was done to study the therapeutic efficacy, safety and outcome of Needle aspiration for large amoebic liver abscess combined with anti amoebic drugs and comparing it with alone drug treatment.

PATIENTS AND METHODS:

This prospective study was conducted from Jan 2006 to Dec: 2007 at Medical unit-III Chandka Medical College Hospital Larkana. 58 patients were diagnosed to have amoebic liver abscess. The diagnosis was based on clinical features such as anorexia, nausea, vomiting, pain in right hypochondrium, hepatomegaly, leucocytosis, raised ESR and abnormal LFTs especially alkalinephosphatase and ultrasonic evidence of Liver abscess. 06 patients were with drawn from this study because they did not give for follow up.

The patients were divided into two groups. Group A, included patients with abscess > 10 cm and Group B patients with abscess <10cm on ultrasonography. Metronidazole 800 mg thrice a day was given to all patients. Patients with Diabetes Mellitus, Malignancy, chronic liver disease and with multiple abscesses were excluded from study.

Aspiration was done under ultrasound guidance using 16 G lumber puncture needle, 2% Lignocane was used for local anesthesia. During aspiration abscess were seen on ultrasound for complete evacuation. The patients were examined daily for there clinical improvement, Improvement in pain, fever, anorexia and hepatomegaly were considered criteria for the successfulness of treatment. Mean hospital stay was recorded in each group. The follow up was done weekly for the first month, then every two months for next 6 months. Ultrasound was done on each follow up to see the resolution of Liver abscess.

RESULT:

58 patients were included in this study 06 patients did not come for follow up and were excluded. Out of 52 patients, 28 (53.84%) patients in Group A received medical treatment along with needle aspiration, while 24 (46.15%) patients in group B received only medical treatment. 42 (80.76%) were male patients and 10 (19.23%) were females. Male to female ratio was 4.2:1. The ages ranged between 18 to 70 years (Mean age 42.61) (table I). Both groups were similar in age and sex pattern. 48 (92.30%) patients had right lobes abscess while 4 (7.70%) had left lobe abscess. 4 patients (4.70%) had abscess less than 10cm but needle aspiration was done because of their failure of medical treatment. All patients with left lobe abscesses were aspirated. 24 (46.15%) required single aspiration, 03 (5.76%) required two aspiration whereas 01 (1.92%) patient required aspiration for three times. The drained pus was anchovy Sauce and quantity of aspirated pus ranged from 300 ml to 1500 ml. Needle aspiration was effective in draining abscess in 26 (92.85%) patients and failed to drain abscess completely in 02 (7.14%) patient as pus was thick. The procedure was well tolerated by patients and there was no complication noted.

Mean hospital stay in Group A was 5.5 days while it was 8 days in Group B. (table III). The abscess cavity was completely resolved in 24 (85.71%) patients of Group A during 06 months whereas, 12 (50%)

Table No I

n=52

Age and sex distribution of patients with liver abscess

Age (Years)	Males	Females	Total %
< 20	02 (4.6%)	00 00%	02 (3.84%)
21-30	06 (14.28%)	01 10%	07 (13.46%)
31-40	10 (23.80%)	03 30%	13 (25%)
41-50	15 (35.7%)	04 40%	19 (36.53%)
51-60	06 (14.28%)	02 20%	08 (15.38%)
>60	03 (7.14%)	00 00%	03 (5.76%)
	42 (80.76%)	10 (19.23%)	52 (100%)

Table II

n=52

Group A	Group B
Abscess > 10 cm	Abscess < 10cm
28 (53.84%)	24 (46.15%)

Table III

n=52

Signs & symptoms at the time of admission and on 4th day of treatment

Clinical Feature	Group A n= 28	Group B n=24
Pain on admission	28(100%)	22(91.66%)
On 4th day	16(57.14%)	06(25%)
Fever on Admission	28(100%)	20(83.33%)
On 4th day	22(78.57%)	7(29.16%)
Hepatomegaly on admission	28(100%)	24(100%)
On 4th day	26(92.85%)	16(66.66%)

Table IV

n=52

Resolution of Abscess cavity 6 months

Resolution	Group A	Group B
Complete	24(85.71%)	12(50%)
>50 % result	4(14.28%)	8(33.33%)
< 50 %	0(%)	4(16.66%)

patients had complete resolution in group B. Table IV

DISCUSSION:

The Amoebic liver abscess is common world wide with middle age and male predominance[1]. This study is conducted in medical ward III, Chandka Medical College Hospital Larkana to compare needle aspiration plus medical treatment with medical treatment alone.

It is indicated that routine aspiration of amoebic liver abscess is done when the size of abscess is when the size of abscess cavity is more than 10cm, abscess left lobe irrelevant of size, impending rupture, failure to respond to medical treatment or if the patients is more toxic[6]. It is said that needle aspiration along with medical treatment is usually treatment of choice for large amoebic liver abscess and many studies indicate it is superior to chemotherapy alone[2,5,9]. There are different schools of thought some says if size is more 10 cm, should be aspirated, while others consider abscess more than 6cm and still others abscess more than 5cm should be aspirated[12]. However we aspirated abscess more than 10cm. Results of this study show a significant difference in clinical response between two groups. There were rapid clinical improvements in group A with needle aspiration and anti amoebic groups as compared to group B with only medical therapy. Further more our study is supported by many other studies; [10,11,12,13] we found that needle aspiration is easy and effective method of treatment for liver abscess. It remained successful to evacuate the abscess in most patients but failed only in 2 patients, because of thick pus. It also proves that hospital stay is also shortened. This is also reported in other studies[2,5,7,10,12].

This study also showed that needle aspiration under ultrasound guidance is safe procedure and luckily there was no complication reported, showed accelerated resolution of abscess.

CONCLUSION:

It is concluded that needle aspiration under ultrasound guidance is safe and effective method of treating amoebic liver abscess along with anti amoebic drugs than drugs alone. So it should be the treatment of choice if the abscess is more than 10 cm, impending rupture or smaller abscess not responding to medical therapy.

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