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HASIL PENILAIAN SEJAWAT SEBIDANG ATAU PEER REVIEW
KARYA ILMIAH : JURNAL ILMIAH

Judul Artikel Ilmiah : Afibercept and Bevacizumab Injection Effects on Visual Acuity of Post Vitrectomy Diabetic Retinopathy
 Penulis Artikel Ilmiah : ARIEF WILDAN, WINARTO, TRI NUR KRISTINA
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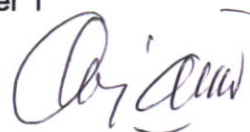
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Ruang Lingkup dan Kedalaman Pembaha	: ruang lingkup keilmuan sesuai dengan bidang ilmu pengusul. Pembahasan mendalam dan dibandingkan dengan penelitian-penelitian lain
Kecukupan & Kemutakhiran Data & Metoc	: Desain penelitian dengan randomized controlled trial, dengan membanding kelompok perlakuan dan kelompok kontrol, dengan perlakuan yang terstandar pada Royal College Ophthalmology
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 Reviewer 2

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Compare the Outcomes of Single Incision Laparoscopic Appendectomy Vs Conventional Three Port Laparoscopic Appendectomy

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ABSTRACT

Aim: To compare the post-operative outcomes of single incision versus conventional three port laparoscopic appendectomy.

Study Design: Randomized controlled trial

Place and Duration: Department of Surgeries, Central Park Teaching Hospital and Shalamar Hospital, Lahore from 1st June 2018 to 31st December 2018.

Method: Total 170 patients of both genders with ages 20 to 60 years were included in this study. Patients were equally divided into two groups. Group I consist of 85 patients and received single incision laparoscopic appendectomy and Group II with similar patients received conventional three port laparoscopic appendectomy. Post-operative outcomes were examined and compare the findings between both groups.

Results: In Group I, 48(56.47%) and 37(43.53%) patients were males and females with mean age 38.56±10.48 years and in Group II 43(50.59%) patients were males and 42(49.41%) patients were females with mean age 39.65±12.42 years. No significant difference was observed between both groups regarding operative time (P>0.05). No significant difference was found between both groups regarding wound infection [Group I, 3(3.53%), Group II, 7(8.24%)]. Patients received single incision laparoscopic appendectomy had shorter hospital stay as compared to Group II patients (1.25±0.80 Vs 2.90±1.05 days) with p-value 0.003. Group I patients had better cosmetic results after 3 months as compared to Group II patients with p-value < 0.05.

Conclusion: Single incision laparoscopic appendectomy is safe and effective treatment modality with better cosmetic results and less hospital stay and low rate of wound infection as compared to conventional laparoscopic appendectomy.

Keywords: Single incision, Conventional, Laparoscopic appendectomy, Operative time, Wound infection, Hospital stay, Cosmesis

INTRODUCTION

Appendicitis is a common disease, and surgical appendectomy is currently the most widely accepted treatment approach.¹ The first report on resection of the appendix was published in 1735.² The procedure was performed on an 11-year-old boy with an inguinal hernia containing an inflamed appendix. Conventional open appendectomy through a right iliac fossa incision was described by McBurney in 1894³ and the first laparoscopic appendectomy was reported by Semm in 1983.⁴

The advantages of minimally invasive surgical techniques include quick and less painful recovery, few postoperative complications and good cosmetic results.⁵ Conventional laparoscopic appendectomy has now become the standard for the treatment of suspected appendicitis in many countries.⁶

Laparoscopic appendectomy has proven to result in decreased pain, fewer postoperative complications, and shorter hospitalization compared with conventional open appendectomy. Single-incision laparoscopic surgery, which emphasizes reducing the number and/or size of incisions that leads to better cosmesis, has been proposed recently.⁷ Other studies have produced conflicting reports about these advantages.⁸ Management of acute appendicitis has been reported as one of several advancements in the single-incision method. Single incision laparoscopic

appendectomy has been shown to be effective and safe for un-complicated appendicitis. The concept of inline viewing is utilized in single-port laparoscopy. This technique is more demanding than conventional three-port laparoscopic appendectomy. Retraction is compromised and there is difficulty in manipulating the instruments.^{9,10}

The present study was conducted aimed to examine the outcomes of single incision laparoscopic appendectomy versus conventional laparoscopic appendectomy.

MATERIALS AND METHODS

This prospective randomized controlled trial was conducted at Department of Surgery, Central Park Teaching Hospital Lahore from 1st June 2018 to 31st December 2018. A total 170 patients of both genders with ages 20 to 60 years presented with acute appendicitis were included. Patients detailed demographic including age, sex, BMI, pathology examination and leukocyte count were recorded. Patients with diabetes mellitus, history of abdominal surgery and give no consent were excluded. All the patients were equally divided into two groups. Group I consist of 85 patients and received single incision laparoscopic appendectomy and Group II with similar patients received conventional instrumental laparoscopic appendectomy. Procedural outcomes such as operative time, hospital stay, post-operative pain, post-operative complications (wound

Detection of Genetic polymorphisms of Methylene tetrahydrofolate reductase among Sudanese patients with chronic myeloid leukemia

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ABSTRACT

Background: Methylene tetrahydrofolate reductase (MTHFR) plays a crucial part in cellular biochemistry because it is involved in the metabolism of the folate critical to DNA synthesis.

Aim: To evaluate gene polymorphisms in MTHFR and the susceptibility to chronic myelocytic leukemia (CML).

Methods: Two hundred CML cases were included in this study, plus one hundred healthy volunteers as controls. All participants were genotyped for both the A1298C and C677T polymorphisms of MTHFR.

Results: Presence of the 677CC/1298AA (wild-type) group was the observational benchmark for the study. The frequency of heterozygous 677CT in CML patients was significantly higher than in the control group [23.5 vs 0.5% (p value = 0.000)], and it imparted a significant risk in CML development. No comparable association was found for homozygous 677TT (OR=1.514, 95% CI: 0.809-2.835, $p=1.95$). For the 1298 A>C polymorphism, a significant variation in the prevalence of the 1298AC genotype between CML patients and controls was found [55% vs 44% ($p=0.006$)]. However, the frequency of the 1298CC genotype was higher in CML patients (11%) in comparison with the controls (0%), ($p=0.006$). Also, both the MTHFR 1289AC and 1298CC genotypes were considered as genetic factors which increased the risk of CML. Furthermore, genotypic analysis revealed the following four combinations correlating to an elevated risk of CML: 677CC/1298CC, 677CT/1298AA, 677CT/1298AC and 677TT/1298AC.

Conclusions: This study found evidence of an association between CML in Sudanese patients and the C677T and A1298C polymorphisms of the MTHFR gene.

Keywords: MTHFR, A1298C and C677T polymorphisms, CML, Sudan

INTRODUCTION

Leukemia is derived from an unusual proliferation of hematopoietic tissue. The disease manifests itself in two forms - chronic and acute¹. Chronic myeloid leukemia (CML) is also known as chronic granulocytic leukemia (CGL) and it affects genomic stability, causing an imbalance between the proliferation and apoptosis of cells. It is this which drives the leukemic changes in CML².

Epidemiological studies point to the association between low folate intake and elevated cancer risk, but CML pathogenesis is also assumed as related to folate metabolism³.

The clinical manifestation and biological aspects of CML have been well reported², but little is known about mechanisms underlying the predisposition of individuals to the disease. Such mechanisms include hereditary, familial, geographic, ethnic, or economic factors⁴.

The methylenetetrahydrofolate reductase gene (MTHFR) is identified by several polymorphisms⁵. Most prominent are single-nucleotide polymorphisms (SNPs), including C677T and A1298C⁶. The MTHFR gene regulates metabolism of folic acid critical to nucleotide biosynthesis and C677T and A1298C SNPs inhibits its enzyme activity³.

Tong and co-workers (2018) stated that polymorphisms of C677T and A1298C have been frequently studied in other cancers⁷ and that less than a third of individuals with the MTHFR 677TT genotype (homozygous state) display enzyme activity in comparison with those cases with the wild-form allele⁸. Contrastingly,

enzyme activity was found in sixty percent of individuals with the heterozygous MTHFR 677CT allele⁹.

Correlation in the detection of C677T and A1298C polymorphisms of the MTHFR gene and the associated risk of other leukemias has also been documented^{9,10}, with indications of a reduced risk of lymphoblastic leukemia among individuals with the 677TT variant¹¹. However, findings about this correlation in other leukemias are unsubstantiated⁹.

Another study has reported that MTHFR polymorphisms, namely C677T and A1298C in CML patients had no inherited genetic susceptibility, but that risk was higher amongst 1298C variant carriers of Asian ethnicity compared with Caucasian populations. The suggestion here therefore, is that ethnicity is a factor in MTHFR A1298C polymorphism and the risk of contracting CML¹².

Other studies also demonstrate the role of MTHFR polymorphism with the risk of CML^{3,8} but the goal of the current study was to explore this association with its most common polymorphisms among diverse ethnicities of the Sudanese population.

MATERIALS AND METHODS

This study investigated two hundred CML patients (132 male, 68 female) with the mean age of 45.06(±12.34 years). The control group comprised one hundred healthy individuals (51 male, 49 female) with a mean age of 39.2