

# **Effectiveness of Kelly Plication Method on Clinical Improvement in Stress Urinary Incontinence Patients**

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## **ABSTRACT**

**BACKGROUND:** Patients with pelvic organ prolapse (POP) usually present with POP, but stress urinary incontinence (SUI) is also found during history taking and physical examination. As a result, the complaint of SUI is persistent despite POP surgery. Therefore, SUI found along with POP and undergoing surgery can be performed Kelly plication method.

**OBJECTIVES:** To examine the effectiveness of Kelly's plication method on clinical changes and quality of life of patients suffering from SUI.

**METHODS:** A single cohort prospective one-group pretest-posttest design conducted at RSUP Dr. Kariadi Teaching Hospital Semarang involving 31 research subjects. All subjects were measured preoperative IIQ-7 questionnaire and pad test. Then, all subjects will undergo Kelly method surgery. Postoperative evaluation will be conducted 3 months later, including measurement of the IIQ-7 questionnaire and pad test. All data will be analyzed with univariate and bivariate analysis using paired t-test and Wilcoxon test.

**RESULTS:** The effectiveness rate of Kelly's plication method was 58.06% in this study. Most of the subjects were aged 50-59 (38.7%) years and had experienced menopause (87.1%). Correlation analysis of baseline data on the degree of preoperative SUI showed that the degree of POP correlated SUI. The Pad test and IIQ-7 questionnaire test showed a significant decrease in postoperative measurements in the treatment group ( $p < 0.001$  &  $p < 0.001$ ).

**CONCLUSIONS:** Kelly's plication method is effective in treating SUI.

**Keywords:** *stress urinary incontinence, SUI, Kelly plication, pelvic organ prolapse.*

## **ABSTRAK**

**LATAR BELAKANG :** Pasien dengan prolaps organ panggul (POP) biasanya datang dengan keluhan POP, inkontinensia urin tipe tekanan (SUI) ditemukan saat dilakukan anamnesis dan pemeriksaan fisik. Akibatnya, keluhan SUI persisten meskipun sudah menjalani operasi POP. Oleh karena itu, SUI yang ditemukan bersamaan dengan prolaps organ panggul dan menjalani pembedahan dapat dilakukan metode plikasi Kelly.

**TUJUAN :** Untuk mengetahui data terkait efektivitas metode plikasi Kelly terhadap perubahan klinis dan kualitas hidup pasien yang menderita SUI.

**METODE :** Penelitian observasional analitik dengan desain *single cohort prospektif one group pretest-posttest*, yang dilaksanakan di RSUP Dr. Kariadi Semarang melibatkan 31 subjek penelitian. Seluruh subjek dilakukan pengukuran data karakteristik dasar, kuesioner IIQ-7 preoperasi, dan tes pembalut. Kemudian, seluruh subjek akan menjalani operasi metode Kelly. Evaluasi pascaoperasi akan dilakukan 3 bulan setelahnya, meliputi pengukuran kuesioner IIQ-7 dan tes pembalut. Seluruh data akan dianalisis menggunakan perangkat lunak, dengan analisis univariat dan bivariat dengan uji *paired t-test* dan *Wilcoxon test*.

**HASIL :** Tingkat efektivitas metode plikasi Kelly tercatat sebesar 58,06% pada penelitian ini. Mayoritas subjek penelitian ini berusia pada rentang 50-59 tahun (38,7%) dan sudah mengalami menopause (87,1%). Analisis korelasi data karakteristik dasar terhadap derajat SUI preoperasi menunjukkan bahwa derajat POP berkorelasi terhadap derajat SUI. Uji pembalut dan uji kuesioner IIQ-7 menunjukkan penurunan signifikan pada pengukuran postoperasi pada kelompok perlakuan ( $p: <0.001$  &  $p: <0.001$ , secara berurutan).

**KESIMPULAN :** Dapat disimpulkan bahwa metode plikasi Kelly terbukti efektif dalam mengurangi kejadian SUI.

**Kata Kunci** : IIQ-7, inkontinensia urin, SUI, plikasi Kelly, prolaps organ panggul.

