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**AB1243 EFFICACY OF ABATACEPT IN THE TREATMENT OF JUVENILE IDIOPATHIC ARTHRITIS ASSOCIATED UVEITIS**

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**Background:** Juvenile idiopathic arthritis (JIA) is the most common rheumatic disease in pediatric age, uveitis IS the most frequent extra-articular complication (1). Uveitis, if not properly treated, can lead to potentially irreversible ocular complications such as blindness.

The treatment of uveitis associated with JIA (U-JIA) remains a challenge due to the aggressiveness of the disease and the frequency of complications.

Following the current guidelines for screening and treatment of uveitis, the use of topical and systemic corticosteroids, Methotrexate, cyclosporine or some biological drugs such as Adalimumab constitute the mainstay of treatment in this manifestation.

In some refractory cases, the use of Abatacept has been reported

**Objectives:** To analyze the efficacy of Abatacept in the treatment of U-JIA from the data available in the scientific literature.

**Methods:** We perform a systematic review of the scientific literature, following the PRISMA statement, using the following electronic databases: *Medline, Embase, Cochrane Library and Web of Science.*

**Results:** An overall of 89 bibliographic references fulfill the inclusion criteria. A total of 64 patients from 6 studies were followed for a mean time per patient of 11.5 months. The mean age of onset of JIA was 5.25 years, with a time of evolution of the disease of 7 and 11.85 years.

In all the series included, a high percentage of patients showed complications secondary to ocular inflammation (synechia, band keratopathy, cataracts, macular cystic edema and/or ocular hypertension) as well as visual deficits secondary to JIA-U.

All patients, fhave shown refractoriness to conventional DMARDs, as well as anti-TNF biological drugs.

In all the studies, the best correct visual activity (BCVA) is used as main outcome measure. Another outcome measures were used: number of uveitis flares, the erythrocyte sedimentation rate (ESR) and C-reactive protein (CRP), or the number of cells present in the anterior eye chamber.

Four series of cases showed an improvement or stabilization of visual acuity after Abatacept treatment. Two studies provided variations in visual acuity that are not statistically significant.

Regarding the efficacy of Abatacept, we can observe improvement, in the most of the studies we observed a decrease in the severity of the ocular inflammation and/or its complete remission.

Due to the lack of comparable data, a meta-analysis could not be performed. However the data suggest a clear recovery of t JIA-U patients refractory to conventional treatment.

**Conclusion:** Abatacept is shown as a promising drug in the treatment of U-JIA, considering its efficacy in improving visual acuity, as well as in the control of flare-ups and the decrease in inflammatory eye symptoms. However, more studies are necessary to corroborate the efficacy of Abatacept

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**AB1244 TOTAL KNEE ARTHROPLASTY IN PATIENTS UNDER 21 YEARS OF AGE: A U.S. NATIONWIDE ANALYSIS**

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**Background:** Total knee arthroplasty (TKA) is a procedure rarely performed in patients under 21 years old. However, the number of patients <21 undergoing TKA in the United States (US) is unknown. In one of the largest US studies of an institutional arthroplasty registry, only 19 TKAs were performed in patients <21 out of ~30,000 primary TKAs over 34 years<sup>1</sup>. While a few national or multi-national studies have been performed outside the US, these studies have small cohorts (~100), making it difficult to determine the indications for TKA in this age group.

**Objectives:** We identified the number of patients <21 years of age who underwent TKA in a US nationwide dataset. Additionally, we determined the epidemiological characteristics of patients undergoing TKA, including their age, sex, race, indications for surgery, and in-hospital mortality.

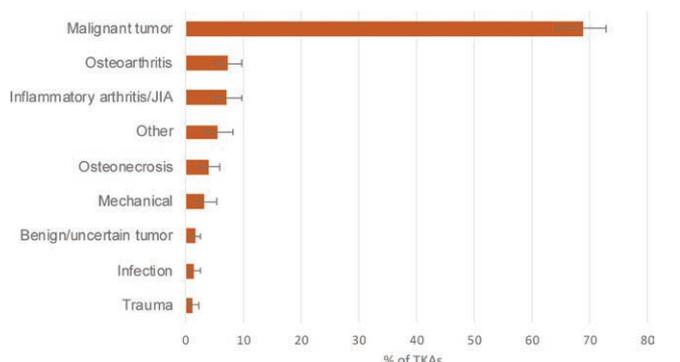
**Methods:** We analyzed the Kids' Inpatient Database, which is a national weighted sample of all inpatient hospital admissions in the US in patients <21 years old from ~4,200 hospitals in 46 states. We included all admissions from 2000-2016 with a primary procedural code of TKA determined by ICD-9 and 10 codes. Descriptive statistics such as means and percentages, along with 95% confidence intervals were calculated using appropriate sample weights.

**Results:** The total number of TKAs performed in patients <21 years old from 2000 to 2016 was 1,331 (Table 1). The majority of TKAs performed (n=936; 70.3%) were for treatment of an oncologic disease. The most common diagnosis was malignant tumor (68.7%), followed by osteoarthritis (7.3%) and inflammatory arthritis or juvenile idiopathic arthritis (JIA) (7.0%) (Figure 1). Osteonecrosis accounted for 3.9% of cases, while mechanical complications accounted for 3.3%. Fewer than 2% of cases had an indication of either benign or uncertain tumor, infection, or trauma. The mean age was 14.8 years, and 48.4% of the cohort was female. A higher proportion of the non-tumor cohort was female (57.1%) than the tumor cohort (44.7%). 57.1% of patients in the overall cohort were White, and this proportion was smaller in the tumor group (53.8%) than the non-tumor group (64.9%). No patients died during the inpatient event. 87.8% of TKAs were performed in urban teaching hospitals.

**Table 1. Characteristics of patients <21 undergoing TKA by diagnosis type**

Variable	Overall N = 1331	Non-tumor N = 395	Tumor N = 936
Age, mean (95% CI)	14.8 (14.4, 15.2)	15.9 (14.7, 17.1)	14.3 (14.1, 14.6)
Sex: Female, % (95% CI)	48.4 (44.9, 51.9)	57.1 (49.1, 64.8)	44.7 (41.1, 48.3)
Race, % (95% CI)			
White	57.1 (52.3, 61.8)	64.9 (55.5, 73.3)	53.8 (48.4, 59.2)
Black	13.1 (10.1, 16.9)	16.9 (10.1, 27.2)	11.5 (8.7, 14.9)
Hispanic	19.7 (16.6, 23.3)	14.3 (9.9, 20.2)	22.0 (18.1, 26.6)
Asian or Pacific Islander	3.4 (2.1, 5.4)	**	4.6 (2.9, 7.4)
Native American	0.9 (0.4, 1.9)	**	**
Other	5.8 (4.1, 8.1)	2.9 (1.3, 6.4)	7.0 (4.8, 10.0)
Payor, % (95% CI)			
Medicare	1.4 (0.7, 2.9)	4.7 (2.2, 9.7)	—
Medicaid	31.1 (27.5, 35.0)	28.0 (21.0, 36.3)	32.4 (28.3, 36.7)
Private	57.8 (53.7, 61.7)	60.2 (52.1, 67.8)	56.7 (52.2, 61.1)
Self-pay	3.3 (2.3, 4.9)	**	4.2 (2.7, 6.2)
Other	6.1 (4.4, 8.3)	5.1 (3.0, 8.6)	6.6 (4.5, 9.4)
Admission type: elective, % (95% CI)	85.9 (81.1, 89.6)	81.6 (72.6, 88.2)	87.7 (82.2, 91.6)

N represents weighted estimate CI = Confidence Interval\*\* Per HCUP guidelines, cell sizes ≤10 have been omitted to protect patient confidentiality



**Figure 1.** Most common primary diagnoses for TKA in patients <21 years oldThe most common primary diagnosis of 1,331 patients <21 undergoing TKA. Bars represent 95% Confidence Intervals. JIA = juvenile idiopathic arthritis.