Methods

Patients

AD patients referred to the outpatient clinic at Bispebjerg Hospital (tertiary referral center) between January 1, 2012, and December 31, 2017, who filled in a questionnaire on AD comorbidities and previous treatment, and who responded to questions regarding CAM use [13], were included in this study.

Assessments

At the first visit, the AD diagnosis was ensured by a senior physician, and Scoring of Atopic Dermatitis (SCORAD) [14, 15] was used for severity assessment. Patients were grouped based on age as children or adults, with adults being ≥16 years old upon referral. Depending on age, patients filled in the Dermatology Life Quality Index questionnaire or the corresponding children's questionnaire (DLQI/CDLQI, respectively) [16, 17], as well as a questionnaire comprising questions on age of onset of AD, comorbidities, eczema distribution (head/neck, trunk, upper and lower extremity), years of education (divided between exceeding and not exceeding high-school level), overall self-rated health (scale from 0 to 4, with 4 being excellent) and treatment history (CAM and conventional). CAM use was addressed with open questions, without listed options to choose from. Reason for use of CAM, choice of CAM and effect from treatment were not addressed in the questions. All examples of CAM were filled in by the patient, and no grouping or editing of the names was done prior to the statistical analysis to prevent observer bias. CAM options were grouped for descriptive purposes in accordance with the guidelines of the American National Cancer Institute. Conventional treatment was addressed with listed options as treatment because of eczema. However, whether patients selected treatments used for indications other than AD is uncertain. In addition, patients could list other previously prescribed treatments. It was not specified at what time the patient used a specific treatment, just that it had been used during their AD. Therefore, the list of medications used by the patients does not account for reason of treatment choice, effect and end of treatment. This may cause an overestimation of certain treatment modalities, including antibiotics, since this group of medication has multiple indications other than AD.

CAM includes complementary treatments, used alongside conventional medicine, and alternative treatments, which are used as a substitute for conventional medicine. Conventional treatments include various topical and systemic treatments: topical corticosteroids (TCS), topical calcineurin inhibitors (TCI), azathioprine, cyclosporine, methotrexate, prednisolone, antibiotics and ultraviolet therapy (UV therapy).

Systemic treatment included tablet and/or injection.

Children (<16 years of age) could have a parent or caretaker fill out the questionnaire, however not a staff member.

Statistical Analysis

Children and adults were analyzed separately using the χ^2 test and independent *t* test (IBM SPSS statistics 22, SPSS Inc., Chicago, IL, USA). CAM status was used as response variable and with, sex, age, treatment history, asthma, allergic rhinoconjunctivitis, serum total IgE, blood eosinophil count, SCORAD, DLQI/CDLQI, overall self-rated health and self-reported eczema distribution within the past month, as explanatory variables. Age of onset of AD was analyzed using the Mann-Whitney U test due to lack of normal distribution. Penicillin was not excluded from the analysis, but with awareness of potential overestimation of prevalence of use, and hereby to prevent potential type 2 errors.