Introduction Granuloma annulare (GA) is a benign inflammatory dermatosis of unknown cause. The Generalised granuloma annulare (GGA) is a subtype of which tends to be resistant to treatment. Various antibiotics have been proposed as a potential therapy for GGA, the most recent being combination therapy with Rifampicin, Ofloxacin and Minocycline (ROM).

Aims This study aim to explore the efficacy of antibiotics in treating GGA, and whether antibiotics may be useful in Children.

Methods We undertook a systematic review of English literature published from August 1947 to July 2017 to evaluate the efficacy of antibiotics in treating GGA and extract relevant data in children less than 18 years. Data sources included MEDLINE, EMBASE, Cochrane library, and references of identified articles.

Results We identified 790 potential studies, of which 229 were duplicates. 541 were excluded on the basis of title and abstracts. Of the 20 eligible studies included in the final analysis. Studies were from USA (40%, n=8), Europe (35%, n=7), Asia (25%, n=5). Majority were case studies (65%, n=13), case series (10%, n=2), cohort studies (10%, n=2) and Open label prospective studies (15%, n=3). 2 on ROM therapy and 1 of dapson. There were 113 treated patients, 60% (n=68) were female. Children constitute 14% (n=16/113), with age range 2–18 years, treated with antibiotics, of which 3 were GGA and 13 Non-GGA (i.e 8 Localised GA, 2 perforating GA, and 3 subcutaneous GA). Main antibiotic treatments reported were either the monthly combination therapy given as ROM, or single therapy of dapson or doxycycline/Minocycline. There was a good response in Non-GGA in Children with only 15% recurrence rate while only 33% achieve remission in the GGA. Unlike adults, no side effects reported in Children.

Strength and limitations Our results highlight the strengths of combining outcomes of rare events. The lack randomised controlled trials, however, was a significant limitation. In addition, none of the literature looking at ROM combination therapy were in Children.

Conclusion There is paucity of evidence to support the use of antibiotics in the treatment of GGA in children. Although, recently ROM as shown promising results in adults, more studies are needed to validate this findings.

REFERENCES