susceptibility of rheumatic sibs to rheumatic affection

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It is known from longtime that rheumatic fever occuredfrequently in more than one member of an affected family(PaLI1,1957). Until! now it has not been cleat”lydemonstrated that susceptibility to rheumatic fever isinherited (Taranto et aL, 1959) but recently numerousinvestigators have suspected that thet”e is a geneticpredisposition to rheumatic fever (Hafez et al., 1987) and(Khanna et al., 1989). The present study was carried out todemonstrate the susceptibility of rheumatic sibs torheumatic affection, in order to take their prophylacticregimen before appearance of the disease, as primaryprophylaxis, if carried out in a propel”way, so preventingthe initial attacks of rheumatic fever is valiable andimportant aim than the prevention of recurrance.The study was carried out on 205 healthy sibiling ofrheumatic children, 113 male (55.12%) and 92 female (44.88%)their ages ranged from 5-16 years (mean age 10.54) and 25healthy control group they were 14 male (56%) and 11 female(44%), their mean age (was 10.43 years) they were followedup for a period of 6 month from June 91 to December 91).The susceptibility of rheumatic sibs to rheumatic affectionwas carried and through:1- Clinical and epidemiological investigation o~ rheumaticsibs especially ~or upper respiratory tract in~ections2- Throat swabs were taken ~rom these cases and controlevery month and on suspicion o~ respiratory tractin~ection in order to:a) Isolation o~ GABS the main organism responsible~or the pathogenesis of’rheumatic ~ever.b) Isolation o~ B-lactamase producingespecially staph. aureus, Bacteroidsin~leunza which may give protection toresult in Penicillin treatment ~ailureorganismsand H.GABS ando~ thisorganism.3- Determination o~ ASO titre ~or detectionresponsive children which are at a great riskrespondersA diagnosis o~ ”Streptococcal in~ection was made when evereitherr hemolytic Streptococci were isolated by throatculture regardless of’ clinical Symptomatology or a riseoccurred in an antistreptolysin 0 titre even in the absenceo~ a positive throat culture. All Streptococcal in~ectionswas subdivided into ”symptomatic and symptomatic in~ection.”o~ hyperthanlowSymptomatic Streptococca1 infection:Group presented with sever or moderate obvious eHudativetonsillopharyngitis as well as milder cases o~ rhinitis andbronchitis.Asymptomatic infections:cases in which Streptococci were isolated ~rom them withoutclinical mani~estation.- The resu1ts i11ustrates:1- During the period o~ this study a total o~ 197symptomatic respiratory illnesses were recorded among the205 children. Tonsillopharyngitis represented mainclinical presentation (32.99X) ~ollowed by bronchitis(22.84X), rhinitis 921.82X),

gastrointestinal (14.72X)and P.U.O (1.52X).2- No Specific Symptom can di~ferentiate Streptococcal fromnon Streptococcal in~ection (P> 0.05). GABS wasresponsible ~or (20.81X) o~ the in~ection.3- As regard the frequency of isolated organisms fromrepeated throat cultures of rheumatic sibs and control,GABS represented a higher percentage o~ isolation 60X inour cases and 12X only in the 500 I.U/ ml. While thehighly recorded titre in the control were only 4001. control (P U/ ml.10- There was a good correlation between Symptomatizingcases of group A Streptococcal infection and positivityo~ ASO.from this study we can conclude that the siblings ofrheumatic patient are at a great risl(of' developingrheumatic f'ever. So they must be regularly exposed tOl(1) Throat swabing f'or detection and eradication of' group Abeta hemolytic Streptococci.(2) Serotyping of' isolated group A Streptococci f'ordetection of' rheumatogenic strains.(3) Throat swabing f'or detection of' B-lactamase producingorganisms f'or proper eradication and uncovering of'accused Streptococci and prevention of' their in vivoprotection.(4) Frequent ASO determination f'or detection of' hyperresponsivechildren which are at a greater risk than lowresponders.(5) Scoring of' all the preVious items in a special scoresystem to choose those with high score (i.e moresusceptible to develop rheumatic f'ever) and applyingprimary prophylaXis obligatory.(6) In a country with low Socioeconomic standard, high levelof' ignorance and lack of' proper medical care, expansionof' primary prophylaxis still remains the milestone inprevention of rheumatic f'ever so we recommended in ourlocality expansion of' primary prophylaXis to allsiblings of' rheumatic children.