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Original Paper

Treatment for hyperactive children: Homeopathy and methylphenidate compared in a family setting.

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Abstract

Background: The sharp increase of the prescription of methylphenidate (MPD) in hyperactive children during the past years is a matter of increasing uneasiness among professionals, parents and politicians. At the same time there is nearly no awareness concerning treatment alternatives, and what can be expected of them.

The purpose of this prospective trial was to assess the efficacy of homeopathy in hyperactive patients, and to compare it to the effects of MPD. The study was performed in a paediatric practice with conventional and homeopathic background.

Methods: Children aged 3 to 17 years, conforming to the DSM-IV criteria for attention deficit/hyperactivity disorder (ADHD) with a Conners Global Index (CGI) of 14 or higher were eligible for the study. All of them received an individual homeopathic treatment. Once clinical improvement as judged by the parents (including school feedback) reached a rating of 50 %, the parents were asked to reevaluate the symptoms with the CGI. Those who did not improve sufficiently on homeopathy were changed to MPD, and again evaluated by CGI-scoring after three months.

Findings: 115 children (92 boys, 23 girls) with a mean age of 8.3 years at diagnosis were included in the study. Prior to treatment the mean CGI of all patients was 20.63 (14-30), the mean index of the homeopathy group 20.52 and of the MPD-group 20.94. After an average treatment time of 3,5 months 86 children (75 %) had responded to homeopathy, reaching a clinical improvement-rating of 73 % and an amelioration of the CGI of 55 %. 25 children (22 %) needed MPD; the average duration of homeopathic (pre-) treatment in this group was 22 months. Clinical improvement under MPD reached 65 %, the lowering of the CGI 48 %. Three children did not respond neither to homeopathy nor to MPD, and one left the study.

Interpretation: In cases where treatment of a hyperactive child is not too urgent, homeopathy is a valuable alternative to MPD. The reported results of homeopathic treatment appear to be nearly identical to the effects of MPD. Only children who do not reach the high level of sensory integration needed during school-time have to be changed to MPD-treatment. In preschoolers, homeopathy presents as the ideal medical treatment for ADHD.

Key words

Hyperactive children, homeopathy, methylphenidate.

Introduction

The trends in the prevalence of ADHD and the prescription of MPD in children and adolescents in northern America during the past decade have shown a marked increase^{1,2}. Reported prescription rates range from 1.1 % in Michigan (children 0-19 years)³, 3.4 % in Ontario (students grades 7, 9, 11, 13)⁴ to 8-10 % in south-eastern Virginia (students grades 2-5, with an endpoint at 18 to 20 % of grade 5 white boys)⁵. The increase seems not to be limited to the United States and Canada: In Switzerland, as in many other western countries, the frequency of ADHD-diagnosis and MPD-prescriptions have also risen remarkably during the past years^{6,7}.

Along with this rise comes a concerned call for more accurate diagnosis of ADHD⁸, and reports of abuse of the substance that has similarities with cocaine in pharmacodynamics and pharmacokinetics⁹⁻¹². Other bothering problems include non-compliance with frequent dosing and wear-off or rebound effects¹³.

For parents of hyperactive children the fact that their child should get a long time treatment with a substance that falls under the legislation for narcotics (i.e. in Switzerland) is often a cause of major concern. Many of them refuse such a treatment until or unless the schools exert extreme pressure towards MPD-administration. One of the main social causes for the rise in MPD-prescription may be found in the lowering of public educational budgets in recent years, leading to larger school classes in which hyperactive behaviour is less tolerable.

It is not surprising therefore, that professionals call for options in pharmacotherapy and parents seek alternative treatments, despite the lack of controlled research on their efficacy and safety^{13,14,15}.

The purpose of this trial was to assess the efficacy of homeopathic treatment¹⁶⁻¹⁸ in ADHD, answering the following questions: 1. What percentage of children can be sufficiently treated with homeopathy and needs no other medication, how many need MPD, and how many do not respond to these medical treatments at all? 2. What is the effect of homeopathic treatment and MPD as rated by the CGI¹⁹⁻²¹? 3. How do parents rate clinical improvement, including feedbacks from schools. 4. Time horizons: How much time is needed to reach an adequate treatment effect in homeopathy? Duration of homeopathic treatment in patients who finally received MPD, and clinical amelioration during homeopathic treatment in this group?

Methods

Eligible for the study were children between 3 and 17 years conforming to the DSM-IV diagnostic criteria for ADHD²² („1. Presence of either six symptoms of inattention or six symptoms of hyperactivity-impulsivity, which have persisted for at least 6 months to a degree that is maladaptive and inconsistent with development level. 2. Presence of some symptoms that caused impairment before age 7 years. 3. Presence of some impairment from symptoms in two or more settings (e.g. school or work and at home). 4. Clear evidence of clinically significant impairment in social, academic, or occupational functioning. 5. The symptoms do not occur exclusively during the course of a pervasive developmental disorder, schizophrenia, or other psychotic disorder and are not better accounted for by another mental disorder (e.g. mood disorder, anxiety disorder, dissociative disorder, or a personality disorder)“).

The diagnostic procedures included meticulous history taking, a general and

neurologic examination (as described by the author earlier²³) and an assessment of the hyperactivity and attention deficit symptoms according to the Conners 10 item rating scale (Conners Global Index¹⁸). Included in the study were patients with a CGI of 14 or higher. If there was any doubt concerning the ADHD-diagnosis, patients were referred to a child and adolescent psychiatrist or psychologist or a paediatric neurologist for further testing (36 children, 31 % of all patients).

Each child was first treated with homeopathy. To be effective, the homeopathic medicament has to match the *individual* symptoms of the patient, i.e. the symptoms that are *not* commonly present in most hyperactive children and therefore distinguish him from the others. This process of individual adaptation of the treatment may require some time, and include trials of possible medicaments, until the optimal effect is reached.

The matching of patient-symptoms and homeopathic remedies was performed following the procedures of Hahnemann¹⁵⁻¹⁷, assisted by a computer-program (amokoor²⁴) based on the works of Boenninghausen²⁵⁻²⁷. The working-technique has been described by the author in earlier publications^{28,29}. In this trial homeopathic preparations of the following medicaments were used successfully (number of patients in parenthesis): *Lyc.* (12), *calc.* (7), *sulf.* (7), *bell.* (6), *caust.* (6), *phos.* (6), *ign.* (5), *nux-v.* (5), *arg-n.* (4), *sep.* (4), *lach.* (3), *merc.* (3), *puls.* (3), *sil.* (3), *ars.* (2), *staph.* (2), *agar.* (1), *bar-c.* (1), *bry.* (1), *chin.* (1), *hep.* (1), *hyos.* (1), *nat-m.* (1) and *stram.* (1)³⁰. All patients received liquid Q-potencies¹⁸ (Q-3 to Q-30) every day or every second day, depending on the severity of their symptoms. Each potency (e.g. Q-3) was used for 4 weeks, moving on to the next higher level (e.g. Q-4) after a treatment-free interval of several days to one week. If the child's reaction to the given medicament was insufficient (wrong choices

usually do not change the hyperactivity symptoms), the next similar remedy was prescribed. Once an adequate response had been reached, the children received the next higher potency of the same medicament.

For clinical assessment of treatment the parents had to report the changes observed in every symptom they initially reported, i.e. hyperactivity 'considerably improved', slightly improved, 'unchanged' or 'worse'. After reporting the changes of every individual symptom they were asked to summarize the overall clinical improvement in percent. When the overall amelioration reached 50 % or more, the treatment was reassessed by the CGI rating scale. The timing for this reassessment thus was individual, depending on the time required to find the correct homeopathic remedy. Patients who did not reach sufficient clinical improvement, or whose behaviour remained unacceptable despite a certain response to homeopathy were changed to MPD after a confirmative reevaluation. The point at which a patient was deemed a treatment failure thus was individual, dependent on environmental tolerance for his behaviour. Many children had a long time homeopathic treatment, before a crisis (usually school pressure) made MPD necessary.

Two weeks after the initiation of MPD-treatment, the CGI was determined to distinguish responders from non-responders. The final evaluation of this treatment by CGI followed three months after the optimal adjustment of MPD-dosage.

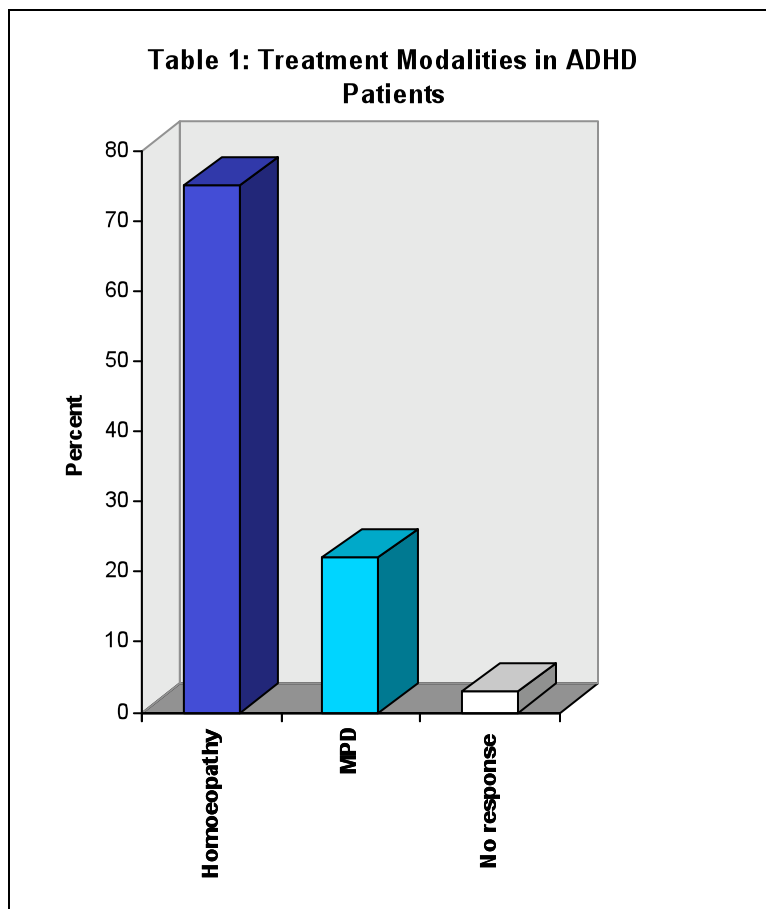
Patients

115 children (92 boys, 23 girls) conformed to the eligibility criteria. Their mean age at diagnosis was 8.3 years. In the homeopathy group 76 % of the patients were boys, 24 % girls, with a mean age of 7.9 years at diagnosis. In the MPD group 92 % were boys, 8 % girls, with a mean age of 9.6 years. Non responders and drop outs were all boys with a mean age of 9.0 years.

Results

1. Treatment modalities in ADHD patients:

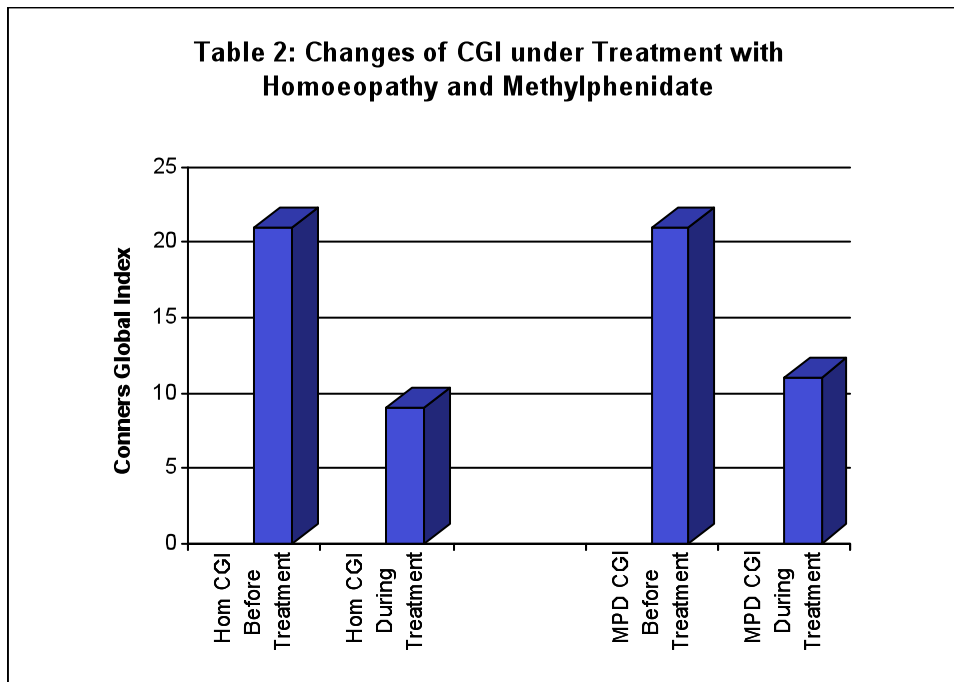
86 patients (75 %) responded sufficiently to homeopathy, and 25 (22 %) needed MPD. Only three patients (3%) did not respond neither to homeopathy nor to MPD (table 1). One child left the study.



2. Comparison of response to homeopathy and MPD:

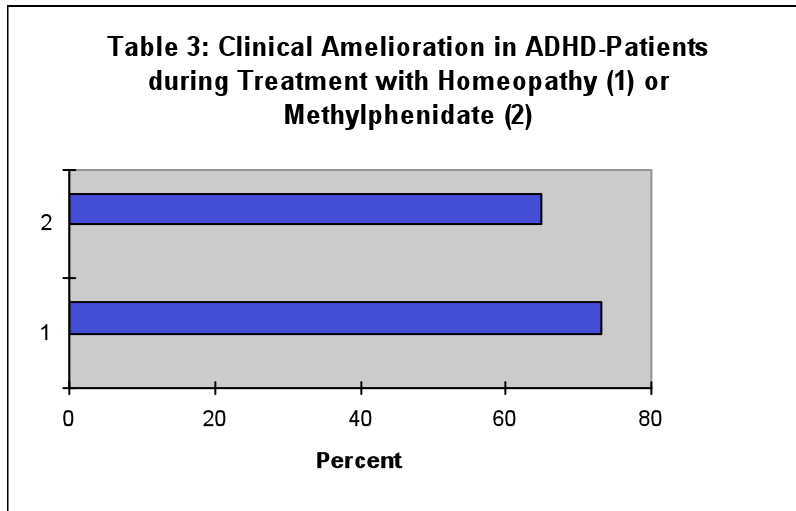
The mean value of the CGI ratings of all patients prior to treatment was 20.63, the one of the homeopathy group 20.52, and the one of the MPD group 20.94. During homeopathic treatment the mean CGI rating sank to 9.27 corresponding to an amelioration of 55 %, and during MPD to 10.96, corresponding to an amelioration of

48 % (table 2). The CGI prior to change to MPD was determined only in a small group of patients. It reached an average value of 13.0 which corresponds to an amelioration of 37 %.



3. Clinical improvement ratings:

Clinical improvement ratings by parents in homeopathy treated children reached 73 %, and with MPD 65 % (table 3): Most of the MPD-patients had a treatment effect of homeopathy, but it was with a clinical improvement of 43 % considerably lower than in children who stayed on homeopathy.



4. Time horizons:

The average time needed to reach an optimal homeopathic treatment effect was 3,5 months (1-16 months, *table 4*), the mean duration of homeopathic treatment in those patients who finally needed MPD 22 months (4-62 months, *table 5*).

Discussion

In an earlier placebo-controlled study, Lamont showed, that homeopathy is an effective treatment in hyperactive children³¹. Instead of leading long discussions whether or not homeopathy is placebo, the effects of this method have to be assessed by the same scales that are applied to mainstream-medicine. In a situation where alternative treatments are frequently used, it is essential to know what can be expected of them.

It surprises that 75 % of the studied children reach a satisfactory amelioration with homeopathy in a *family* setting. On the opposite, most children who needed MPD, did so because of *school* pressure and not the situation at home.

The observed parent ratings of clinical improvement and the lowering of the CGI under homeopathy were slightly better than for MPD. This finding may be due to the

short duration of action of MPD (four hours in the normal- and 8 hours in retard-form³²), which often leads to difficult times at noon and in the evening (observation of the authors). Therefore it is mainly the school-situation that profits from MPD. The difference between clinical amelioration and CGI ratings can be explained by the fact, that every amelioration in a hyperactive child is an enormous relief for family and school. The higher clinical improvement ratings reflect this relief, while the detailed 10 item ratings with the CGI show a more realistic picture of what has really been achieved.

It may be argued, that all children who received MPD had also a homeopathic pre-treatment, and that they may therefore react better to MPD than children without pre-treatment. The authors do not think that this is the case, because in the treatment-free intervals between the Q-potencies, most children show a reappearance of the hyperactivity symptoms. This finding favours the impression, that homeopathy is - as MPD - a palliative treatment. Long time follow-up studies over several years would be necessary to settle the question, whether or not a curative effect can be expected.

A problem in homeopathy is the delay until the optimal amelioration is reached. Since it is necessary to make an individualized prescription, it is difficult to treat in a situation where an improvement has to be immediate. The choice of the correct medication is dependent on the individuality of the symptoms, i.e. if a patient only has the 'standard symptoms' of ADHD and nothing peculiar, the homeopathic physician may have to make 'therapeutic trials' to find the correct remedy. The administration of a wrong remedy usually does not change anything, while giving the right one leads to a clear, substantial improvement within four weeks. (This observation is one of the arguments against placebo nature of treatment). Table 4 shows, that the majority of children responding to homeopathy do so within 6

months. If a child has not responded by then, it is unlikely that it will, and MPD treatment may be considered at this time.

Major advantages of homeopathy over MPD are the easy administration (once every day or once every second day), a continuous treatment effect over 24 hours, no side effects except for a possible short initial aggravation, and no abuse potential. For many parents this last point is *the* important concern. At preschool-age, when MPD has many side effects ³³, homeopathy may be the first choice, as well as for students, who do not need to have an immediate relief. Finally, there is an extremely low number of non-responders if both methods are available (3%).

References

1. Robinson LM, Sclar DA, *et al.* National trends in the prevalence of attention-deficit/hyperactivity disorder and the prescription of methylphenidate among school-age children: 1990-1995. *Clin Pediatr (Phila)* 1999 Apr; 38 (4):209-17.
2. Goldman LS, Genel M, *et al.* Diagnosis and treatment of attention-deficit/hyperactivity disorder in children and adolescents. Council on Scientific Affairs, American Medical Association. *JAMA* 1998 Apr 8;279 (14): 1100-7.
3. Rappley MD, Gardiner JC, *et al.* The use of methylphenidate in Michigan. *Arch Pediatr Adolesc Med* 1995 Jun; 149 (6):675-9.
4. Ivis FJ, Adlaf EM, Prevalence of methylphenidate use among adolescents in Ontario. *Can J Public Health* 1999 Sep-Oct;90(5):309-12.
5. LeFever GB, Dawson KV, *et al.* The extent of drug therapy for attention deficit-hyperactivity disorder among children in public schools. *Am J Public Health* 1999 Sep;89(9):1359-64.
6. Baumgaertel A, Wolraich ML, *et al.* Comparison of diagnostic criteria for attention deficit disorders in a Germany elementary school sample. *J Am Acad Child Adolesc Psychiatry* 1995 May;34(5):629-38.

7. Andres Carrasco MA, Catala MA, *et al.* Study of the prevalence of attention deficit hyperactivity disorder in ten-year-old children living in the Valencia metropolitan area. *Actas Luso Esp Neurol Psiquiatr Cienc Afines* 1995 Jul-Aug;23(4):184-8.
8. Schneider SC, Tan G, Attention-deficit hyperactivity disorder. In pursuit of diagnostic accuracy. *Postgrad Med* 1997 Apr; 101(4):231-2,235-40.
9. Llana ME, Crismon ML, Methylphenidate: increased abuse or appropriate use? *J Am Pharm Assoc (Wash)* 1999 Jul-Aug;39(4):526-30.
10. Massello W 3rd, Carpenter DA, A fatality due to intranasal abuse of methylphenidate (Ritalin). *J Forensic Sci* 1999 Jan;44(1):220-1.
11. Crutchley A, Temlett JA, Methylphenidate (Ritalin) use and abuse. *S Afr Med J* 1999 Oct;89(10):1076-9.
12. Musser CJ, Ahmann PA, *et al.*, Stimulant use and the potential for abuse in Wisconsin as reported by school administrators and longitudinally followed children. *J Dev Behav Pediatr* 1998 Jun;19(3):187-92.
13. Garland EJ, Pharmacotherapy of adolescent attention deficit hyperactivity disorder: challenges, choices and caveats. *J Psychopharmacol* 1998;12(4):385-95.
14. Stupperfield T, Parry T, Utilisation of alternative therapies in attention deficit hyperactivity disorder. *J Paediatr Child Health* 1999 Oct;35(5):450-453.
15. Baumgaertel A., Alternative and Controversial Treatments for Attention-Deficit/Hyperactivity Disorder, *Paediatr Clin North Am*, 1999, Oct;46(5),977-992
16. Hahnemann FS, *Organon der Heilkunst*, ed 6 B, Heidelberg, Germany, Haug, 1989.
17. Hahnemann FS, *Die Chronischen Krankheiten*, ed 5, Heidelberg, Germany, Haug, 1991.
18. Hahnemann FS, *Reine Arzneimittellehre*, ed 4, Heidelberg, Germany, Haug, 1989.
19. Conners CK, *Conners' Rating Scales (Revised)*, Technical Manual. Toronto, Canada:1997.
20. Conners CK, Rating Scales in Attention-Deficit/Hyperactivity Disorder: Use in Assessment and Treatment Monitoring. *J Clin Psychiatry* 1998;59 Suppl7:24-30.

21. Conners CK, Clinical use of rating scales in diagnosis and treatment of attention-deficit/hyperactivity disorder. *Paediatr Clin North Am* 1999 Oct;46(5):857-70,vi.
22. American Psychiatric Association: *Diagnostic and Statistical Manual of Mental Disorders*, ed 4. Washington DC, American Psychiatric Association, 1994.
23. Frei H, The „clumsy“ child: differential diagnosis and therapeutic indications. A review. *Schweiz Med Wochenschr* 1986 Mar 8;116(10):294-9.
24. Steiner U., *Amokoor - Homeopathy Software* based on C.v. Boenninghausen, Goldau, Switzerland, Steiner, 1992.
25. Boenninghausen C.v., *Therapeutisches Taschenbuch für homöopathische Aerzte* 1897, Hamburg, Germany, Von der Lieth, 1990.
26. Boenninghausen C.v., *Die Aphorismen des Hippokrates*, Göttingen, Germany, Burgdorf, 1979.
27. Boenninghausen C.v., *Kleine Schriften*, Heidelberg, Germany, Gypser, 1984.
28. Frei H, Die Heringsche Regel und ihre Auswirkung auf die Hierarchie der Symptome, *Z Klass Hom* 2/1999 (43):47-52.
29. Frei H, Die Rangordnungen der Symptome von Hahnemann, Boenninghausen, Hering und Kent, evaluiert anhand von 175 Kasuistiken, *Z Klass Hom* 4/1999 (43):143-155.
30. Hering C., *The Guiding Symptoms of our Materia Medica*, New Dehli, India, Jain, reprint ed. 1991.
31. Lamont J., Homoeopathic treatment of attention deficit disorder. *Br Hom J*, 1997, 86:196-200.
32. Morant J, Ruppner H, *Arzneimittelkompendium der Schweiz*, Basel, Switzerland, Documed, 2000.
33. Byrne JM et al, Clinical assessment of psychopharmacological treatment of preschoolers with ADHD, *J Clin Exp Neuropsychol* 1998 Oct;20 (5), 613-27.