

A Case of Coccidioidomycosis (Acute Valley Fever) with Complications of Erythema Multiforme

A Homeopathic Medicine Case Report

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Abstract: An eleven-year-old male presented to the clinic with fever, cough and rash. He was diagnosed with an acute Valley Fever (coccidioidomycosis) infection with erythema multiforme and was successfully treated with a homeopathic medicine using Bönninghausen's Therapeutic Pocketbook (1) method. This case illustrates the effectiveness of homeopathy for these fungal infections as well as the efficiency of utilizing Bönninghausen's *Therapeutic Pocketbook* method, using TBR2 (2), the most accurate English translation of the *Therapeutisches Taschenbuch* [TT].

Keywords: Valley Fever, Coccidioidomycosis, Erythema Multiforme, homeopathic treatment of; *Lachesis*, Bönninghausen, TBR2.

Introduction

Coccidioidomycosis or Valley Fever, is caused by the inhalation of airborne spores of *Coccidioides immitis* or *C. posadasii* in endemic areas which include arid areas of the southwestern United States, Mexico, Central America, and South America.(3) In the United States, coccidioidomycosis is a reportable disease in Arizona, California, Nevada, New Mexico, and Utah.(4) The CDC reports that there has been an increase in the incidence of coccidioidomycosis in those areas from 1998 to 2011. The incidence has increased from 5.3 per 100,000 population in 1998 to 42.6 per 100,000 in 2011.(5) It is estimated that 70% of all cases in the U.S. occur in Arizona.(6) Not only is Valley Fever an increasingly common infection in endemic areas, but it can also be severe with almost 75% of symptomatic patients missing school or work and more than 40% needing hospitalization.(5)

Coccidioides infection most commonly presents as a self-limited respiratory tract infection. On x-ray, findings are similar to other pneumonias. During a Valley Fever infection, many other organs can be affected and cutaneous manifestations do occur.(6) During the acute phase, flu-like symptoms are common as well as "desert rheumatism—fever, arthralgia, and erythema nodosum."(7) While erythema nodosum is the most common cutaneous manifestation, commonly appearing one to three weeks after the first pulmonary symptoms are seen, other cutaneous manifesta-

tions can occur such as erythema multiforme and a papular rash. Erythema multiforme presents as target-like lesions that usually occur within the first 48 hours of pulmonary symptoms. This presentation often occurs with pruritus and desquamation; a generalized exanthema can also occur.(6)

The treatments for Valley Fever are often debated and commonly include antifungals, however, there are few guidelines on which patients should receive antifungal therapy.(8) In this case report, only homeopathy was given.

The following case report was written according to CARE Guidelines.(9)

Patient Information

August 12, 2015

On the student teaching rotation at SCNM, an eleven-year-old white male presented to the clinic with high fever (103°F/39.44°C oral) for the past three days. The patient was extremely lethargic, with severely itching hives that were coalescing into purple eruptions that would turn into vesicles on scratching. He also exhibited a dry cough. He reported a past medical history of asthma and allergies.

On auscultation, there was wheezing in the right middle and lower lungs and the spleen was enlarged. The eruption suggested erythema multiforme, for which there could

a. The Southwest Naturopathic Medical Center is the student teaching clinic affiliated with the Southwest College of Naturopathic Medicine (SCNM) in Tempe, AZ

Date	Summaries of initial and follow-up visits	Diagnostic testing	Interventions
8/12/15		8/12/2015: WBC: 11.9 H, Neutrophils:7.3 H, Eosinophils: 1.7 H IgE: 5751 H, Sedimentation rate: 50H, C-reactive protein: 107H 8/13/2015: Coccidioides Ab IgG EIA: 0.156 H Coccidioides Ab IgM EIA: 0.299 H 8/13/2015: Infiltrative process in the lower right lung field. Suggestion of mediastinal adenopathy	<i>Lachesis</i> 1M, 3 pellets dry, dissolved in mouth every two hours
8/14/15	Fever began reducing and hives lessened within 1 day. Hives slightly worsened on 8/14.		Potency increased to <i>Lachesis</i> 10M, 3 pellets dry every 3 to 4 hours or as needed
8/19/15	Patient returned to clinic for 1 week follow-up. Temperature was normal. On PE, lungs were clear to auscultation and rash was significantly improved.		Continued <i>Lachesis</i> 10M, 3 pellets dry, 3 times a day
9/2/15	Patient returned to clinic for 3 week follow-up. On PE, lungs were clear to auscultation and rash was almost completely resolved with slight remaining desquamation.	9/2/2015: Neutrophils: 3.4, Eosinophils: 1.4 H, IgE: 4998 H Sedimentation rate: 30 H, C-reactive protein: 8.0 H 9/3/2015: X-ray showed resolving infiltrates in right middle lobe and mild adenopathy 10/12/2015: WBC: 6.3, Eosinophils: 0.6 H, Sedimentation rate: 6 C-reactive protein: 0.6	Continue treatment
10/21/15	Patient seen for another concern. No remaining or returning symptoms.		

Timeline

have been many causes (See Figure 1, next page: pictures A, D, G).

Given the positive lung sounds, fever, and rash, labs were run based on reasonable initial differential diagnoses (see Table 1). A chest x-ray was ordered to rule out pneumonia. His lab results were positive for *Coccidioides* IgM and IgG titers, and the chest x-ray documented infiltrates in right middle and lower lung with mediastinal adenopathy (see Table 2 on following page). The chest x-ray combined with positive titers were consistent with a diagnosis of acute Valley Fever.

Lab	Aug. 12, 2015	Aug. 13, 2015	Sept. 2, 2015	Oct. 12, 2015	Reference range
WBC	11.9 H			6.3	3.4-10.8 X10E3/UL
Neutrophils (Absolute)	7.3 H		3.4		1.4-7.0 X10E3/UL
Eosinophils (Absolute)	1.7 H		1.4 H	0.6 H	0.0-0.4 X10E3/UL
Immunoglobulin E, Total	5751 H		4998 H		0-200IU/ml
Sedimentation Rate-Western	50 H		30 H	6	0-15mm/hr
C-Reactive Protein, Quant	107.0 H		8.0 H	0.6	0.0-4.9mg/L
Coccidioides Ab, IgG, EIA		0.156 H			Abs
Coccidioides Abs, QN, DID		Negative			Neg: <1:1
Coccidioides Ab, IgM, EIA		0.299 H			Abs
M Pneumonia IgG Abs		323 H			0-99U/ml
M Pneumonia IgM Abs		<770			0-769U/ml

Table 1

version of Bönninghausen’s Therapeutic Pocketbook, based on George Dimitriadis’ English translation, TBR2.

Homœopathic Case Analysis

The most characteristic symptoms were the severely itching hives that were coalescing into a purple eruption (erythema multiforme) after scratching. These were the symptoms we chose to repertorize (see Figure 2 next page) using the computerized Programme

Rubrics

1512 - Generals, Skin & externals, Eruptions, Vesicles (and bullae (blisters)), scratching, after [31]
1620 - Generals, Skin & externals, Ulcers, Colour, bluish [19]

Imaging	Aug. 13, 2015	Sept. 3, 2015
Chest x-ray	<p>Findings: There is an ill-defined infiltrative process in the lower right lung field, which appears to be in the middle lobe. The left lung field is expanded and clear. There are no pleural changes. The heart is not enlarged. There is a mild fullness in the mediastinum suggesting enlarged nodes. There are no skeletal changes.</p> <p>Impression:</p> <ol style="list-style-type: none"> 1. Infiltrative process in the lower right lung field. 2. Suggestion of mediastinal adenopathy. 	<p>Findings: An opacity in the right middle lobe is not evident currently. There is still some fullness in the right hilum and mediastinum suggesting prominent nodes.</p> <p>The heart is not enlarged. No pleural effusion.</p> <p>Impression:</p> <ol style="list-style-type: none"> 1. Resolving infiltrates in right middle lobe. 2. Mild adenopathy.

Table 2



Figure 1

ID	Symptom name (Desktop 2)	Lach.	Hep.	Ars.	Merc.	Bell.	Bry.	Mang.	Rhus.
1512	Generals, Skin & externals, Eruptions, Vesicles (and bullae (blisters)), scratching, after [31]	4	3	2	1	1	1	1	4
1620	Generals, Skin & externals, Ulcers, Colour, bluish [19]	4	3	2	2	1	1	1	
	Symptom count [2]	2	1						

Figure 2: TBR 2 Repertorization

Only seven remedies came up for consideration in the TBR2 repertorization. Among the top candidates, *Lachesis* was the only one graded 4 in both rubrics. At this point, we chose to review the top candidate remedies in the materia medica to decide which remedy was the most similar to the totality of characteristic symptoms in the case, including the wheezing, cough and fever.

The repertory is simply a tool to examine more thoroughly the match of a patient’s symptoms to the substance effects of a remedy by similarity in the materia medica. The repertory is designed to elucidate potential homeopathic medicines that may be indicated in a given case of disease. Hahnemann never had a repertory to use himself while developing the system of Homœopathy, though he approved

of Bönninghausen’s repertory towards the end of his life. Thus, we must remember that the homœopathic prescription must always be rooted firmly in a match via similarity to verified primary effects (*Organon* §63) of a substance accurately observed and documented from methodical drug trials (a.k.a. provings) and/or toxicology reports. The homœopath should strive to not base prescriptions solely upon repertorization without a critical examination of the materia medica by referencing reliable primary text sources. There are many possibilities for error in the repertory and, therefore, it is the homœopath’s duty to become adept at consulting the primary sources of materia medica so that prescriptions can be made with as much certainty as possible.

ACONITUM.

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ABANO, PET. DE, *De Venenis*, cap. 50, 1496.
 BACON, VINC., *Philosoph. Transactions*, xxxviii.
 DORR, *Hufel. Journ.*, ix, 4.
 GMELIN, EBERH., *Nov. Acta Nat. Cur.*, vi.
 GREILING, *Vermischte Schriften*.
 HELMONT, J. B. VAN, *Demens. Idea*, § 13. (*Ortus Medicinae*, 1652.)
 MATTHIOLUS, *Comment. in Diosc.*, lib. iv, cap. 73.
 MORAEUS, *Königl. Vetensk. Acad. Handl.*, 1739.
 RICHARD, CLAUD., in *P. Schenck's Obs. Med.*, lib. vii, obs. 156.
 RÖDDER, in *Alberti's Jurisprud. Med.*, tom. vi.
 STÖCKER, ANT. VON, *Libellus de Stram., Hyos. et Acon.*
 In the *Frag. de Vir.* the symptoms of aconite are 213, in the first edition of the *R. A. M. L.*, they are 314, in the second 429, and in the third 541.]

ACONITE.

Vertigo; feeling of swaying to and fro in the brain.

Vertigo, especially when stooping; she staggered to and fro, especially towards the right side (aft. 36 h.). [*Sif. Gss., Archiv f. d. Homöopath. Heilkunst*, iv, i.]

She could hardly get into bed for vertigo, in which all seemed to turn round in a circle with her (aft. 37 h.). [*Sif. Gss.*]

She has a whirling in the head, so that she dare not move it, with a feeling as if the eyes would close. [*Sif. Gss.*]

5. As if intoxicated; all goes round with her, she staggers when walking, as if she would fall, with nausea, not on sitting, worst on rising from a seat, less when walking (aft. $\frac{1}{2}$ h.). [*Sif. Gss.*]

Vertigo very much increased on shaking the head, when it became quite black before her eyes. [*Sif. Gss.*]

Vertigo and dizziness.

Giddy weight of the head, especially in the forehead and on stooping, with nausea, and qualmish feeling in the scrobiculus cordis (aft. 2 h.). [*Sif. Gss.*]

Vertigo. [MATTHIOLI,² *Comment. in Diosc.*, lib. iv, cap. 73.—VINC. BACON,³ in *Philosoph. Transact.*, xxxviii, p. 287.]

10. Vertigo, tightness of chest and dry cough, with pain in hip. [GREILING,⁴ *Vermischte Schriften*, p. 90—113.]

Giddy obscuration of sight, with unaltered pulse. [CLAUD. RICHARD, in *P. Schenck's*, lib. vii, obs. 136.]

Figure 3: Aconite, page 27 from Hahnemann's *Materia Medica*

PREAMBLE.

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In other respects her health is good.

Now, as regards Symptom 1, *belladonna*, *china*, and *rhus toxicodendron* cause shootings in the pit of the stomach, but none of them *only on movement*, as is the case here. *Pulsatilla* (see Symp. 387¹) certainly causes shootings in the pit of the stomach on making a false step, but only as a rare alternating action, and has neither the same digestive derangements as occur here at 4 compared with 5 and 6, nor the same state of the disposition.

Bryonia alone has among its chief alternating actions, as the whole list of its symptoms demonstrates, pains *from movement* and especially shooting pains, as also stitches beneath the sternum (in the pit of the stomach) on raising the arm (448), and on making a false step it occasions shooting in other parts (520, 600).

The negative Symptom 2 met with here answers especially to *bryonia* (638); few medicines (with the exception, perhaps, of *nux vomica* and *rhus toxicodendron* in their alternating action—neither of which, however, is suitable for the other symptoms) show a complete relief to pains during rest and when lying; *bryonia* does, however, in an especial manner (638, and many other *bryonia*-symptoms).

Symptom 3 is met with in several medicines, and also in *bryonia* (694). Symptom 4 is certainly, as far as regards "sickness after eating," met with in several other medicines (*ignatia*, *nux vomica*, *mercurius*, *ferrum*, *belladonna*, *pulsatilla*, *cantharis*), but neither so constantly and usually, nor with relish for food, as in *bryonia* (279).

As regards Symptom 5 several medicines certainly cause a flow of saliva like water-brash, just as well as *bryonia* (282); the others, however, do not produce symptoms similar to the remaining ones. Hence *bryonia* is to be preferred to them in this part of the ailment.

Empty eructation (of wind only) after eating (Symptom 6) is found in few medicines, and in none so constantly, so usually, and to such a great degree, as in *bryonia* (253, 259).

To 7.—One of the chief symptoms in diseases (see *Organon of Medicine*, § 213) is the "state of the disposition," and as *bryonia* (772) causes this symptom also in an exactly similar manner—*bryonia* is for all these reasons to be preferred in this case to all other medicines as the homœopathic remedy.

Figure 4: Preamble, page 21 from Hahnemann's *Materia Medica Pura*. Note how he lists the symptom numbers of a given remedy that correspond via similarity to the symptoms in his case.

To support this sentiment, here are two quotes from Bönninghausen in the original Preface to the original English translation of his 1846 *Therapeutic Pocketbook* (1).

"No homœopathic physician, who is familiar with

the effects of his remedies, having so complete and so accurate a picture of the disease before him, will long be in doubt as to the most suitable remedy in this case, as all those signs together answer only to one of them homœopathically: the beginner on the contrary will be obliged, to look for almost every single symptom and will only after a long investigation find the right one amongst the concurring medicines. Between those two extremes of knowing and not-knowing there are numerous degrees of half-knowledge, which require a more or less frequent consultation of the Manual."

"Beyond doubt, the diligent and careful study of the '*Materia Medica Pura*' cannot be fully supplied by any Repertory whatever; nor have I ever had the intention of making the former superfluous, on the contrary I am of opinion, that all works, having such a tendency, unquestionably do a great deal of harm."

It was fashionable in Hahnemann's time for printers to number every five or ten lines within a book for quick reference. Hahnemann's *Materia Medica Pura* and *Chronic Diseases* follow this schema wherein Hahnemann numbered every fifth symptom within a remedy for easy reference. This was a reliable system for finding information within a large book during an era when one could not quickly use a computer program to search for symptoms as is possible today in the modern digital era. See Figure 3 (on next page) for an example of the numbering system in *Aconite* in *Materia Medica Pura*.

This numbering system of symptoms within the remedies served a very practical purpose to communicate amongst colleagues. For example, when Hahnemann presented his own examples of homœopathic case analyses, he explained the logic for his prescriptions by listing symptoms from the materia medica that most similarly matched the symptoms in the case of disease. Hahnemann used a system of shorthand by listing the numbers of the symptoms for a given remedy that corresponded via similarity to his patient's symptoms. In this way, the reader could look up the symptoms that Hahnemann cited in his case explanation in order to understand the logic of his prescription based on similars. For example, see Figure 4 below wherein Hahnemann gives the shorthand symptom numbers for various possible remedies when discussing his case analysis in a sample teaching case in the Preamble to *Materia Medica Pura*.

Following Hahnemann's model for presenting the logic of his case analysis, we have provided the reader with a more complete listing of symptoms in our patient's case that correspond via similarity to the recorded effects of *Lachesis* in the materia medica below. For the reader's ease, we have herein included the full symptoms cited so that the reader does not have to search the materia medica. In this way, it illustrates by example the symptom similarity of the selected remedy, *Lachesis*, with reference to the pri-

mary sources so that the reader does not have to trust “on authority” the reliability of the repertory or the authors of this article.

Lachesis symptoms that corresponded to those of our patient from the materia medica (Hering’s *Guiding Symptoms*) (10)

- I ...dry and wheezing paroxysm of cough...
- II Constantly obliged to take a deep breath
- I Contraction of chest waking him after midnight, with slow, heavy, wheezing breathing, compelling him to sit up bent forward.
- I ...ulcers on legs with a purplish circumference
- II Chronic indolent ulcers of legs, flat with purple skin...
- I Itching over whole body, burning, yellow or purplish blisters...
- I Itching intense, almost driving to distraction, mostly at night, but also by paroxysms in daytime, often changing to a severe, burning stinging sensation.
- I Purplish color of affected part...
Itching: ...in hands, in different places on tibia, of eczema on legs, of feet and ankles, of pustules in palms of hands...

Lachesis symptoms that corresponded to our patient from Allen’s *Encyclopedia* (11)

- 1325. In the forenoon the whole body began to bite and itch, especially on the upper arms; after scratching, thickish elevated spots appeared (hives), which soon disappeared (second day). [*Hering*]
- 1355. Eruption like nettle rash over the whole face (twenty-sixth day); it disappeared and returned. [*Hering*]
- 1356. Hives on the shoulders. [*Wesselhoeft*]
- 1357. Itching hives on the legs. [*Hering*]
- 1358. Hives on the back. [*Wesselhoeft*]
- 1364. Violent itching on the right heel, afterwards on both heels, then on the right hand and fingers, on the top of the foot, and toes; always worse and burning after scratching, followed by small, hard, white, deeply seated vesicles. [*Hering*]
- 1365. Many itching vesicles on the outer margin of the right hand, with voluptuous burning after scratching (during second week). [*Hering*]
- 1366. Itching in several places between the fingers, where, after scratching, hard shiny elevations appear, followed by small vesicles with burning and tension, often lasting a week. [*Hering*]
- 1367. Small itching vesicles on the backs of both feet. [*Hering*]

Plan: Based upon the above analysis, we prescribed *Lachesis* 1M, 3 pellets dry, dissolved in the mouth every two hours on August 12, 2015.

Follow-up consultations

August 14, 2015

Due to the high fever, severity of rash, and documented infiltrates in the lungs on x-ray, the patient was monitored closely. The fever decreased within 24 hours of starting *Lachesis* 1M and the itching and hives began to lessen. However, by Friday, August 14th, the hives were slightly worsening. Because of the severity of the condition, and the approaching weekend, we chose to increase the potency to *Lachesis* 10M, 3 pellets dry, dissolved in the mouth every three to four hours or as needed on Friday, August 14, 2015.

August 19, 2015

The patient returned one week later on August 19, 2015, fever free. His lung were clear on auscultation. It should be noted that he was also using an albuterol inhaler as needed because of a history of asthma. The rash was significantly improved with less itching, no hives, and the purple rash was significantly improved with the skin returning to a normal color (See Figure 1, pictures B, E, H). The patient was continuing to react positively, so we continued *Lachesis* 10M, 3 pellets dry, dissolved in the mouth three times a day.

September 2, 2015 (three week follow-up)

The patient continued to improve. His rash had almost completely resolved, with only some slight remaining desquamation on the palms and soles (See Figure 1, pictures C, F, I). His lung sounds were clear to auscultation. Now, the patient’s main concern was when he would be allowed to play basketball again because he was “tired of being cooped up.” Follow-up labs and chest x-ray were ordered to monitor progress (see Tables 1, 2). The repeat labs revealed resolution of the previously elevated ESR, CRP, and WBC’s. The repeat x-ray revealed resolving infiltrates in right middle lobe.

The patient was seen in the office for another concern on October 21, 2015 and later on December 2, 2015. At both of those visits, he had no remaining or returning symptoms.

Discussion

In this case report, we used homœopathy for the treatment of acute Valley Fever. Homœopathy has a long history of successfully treating acute infectious diseases. For example, prior to the widespread use of antibiotics, cases of pneumonia treated with other allopathic methods resulted in a mortality rate of 24.4%. By comparison, during the same time period, there were only 866 reported deaths out of 25,216 cases of pneumonia when treated with homœopathy, which resulted in a mortality rate of 3.4% (12,13,14). A meta-analysis of community acquired pneumonia involving 127 study cohorts with 33,148 patients demonstrated an overall mortality of 13.7% using current conventional interventions.(12,15)

Over the course of three weeks, the patient showed improvement in all of his Valley Fever symptoms including erythema multiforme. His labs and imaging also showed

evidence of improvement. Valley Fever typically resolves within a few months.⁽³⁾ One study showed that median times from symptom onset to 50% reduction and complete resolution for patients with mild-moderate symptomatic Valley Fever in those not receiving treatment to be 9.1 weeks and 17.8 weeks, respectively. In those receiving antifungal therapy, median times from symptom onset to 50% reduction and complete resolution were minimally different from patients not receiving treatment, at 9.9 and 18.7 weeks, respectively.⁽¹⁶⁾

In contrast, our case demonstrates that homœopathic treatments have the ability to resolve the disease course within just a few weeks, significantly faster than either non-treatment or antifungal therapies. Additionally, erythema multiforme typically presents lesions over one to two weeks that subside within two to three weeks. Recurrence of lesions is common and occurs in up to one third of cases.⁽¹⁷⁾ In our case, there was no recurrence of symptoms.

Based on the above case, homœopathy should be considered for the treatment of Valley Fever, including cutaneous manifestations. While conventional treatment may include antifungal therapy, there are no definite guidelines determining who should get this therapy because immunocompetent individuals receiving antifungals do not have a significant decrease in the course of the disease. Even though Valley Fever is typically a self-limited infection, this case shows that the time from onset of symptoms to resolution can be significantly decreased with homœopathic treatment.

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