Collecting clinical experience of homeopathic treatment of COVID-19

Eighth issue

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At the moment we have analysed 132 COVID-19 cases, 76 (57.5%) of them responding well to three medicines: *Arsenicum album (ars)* (n=18), *Bryonia (bry)* (n=36) and *Gelsemium (gels)* (n=22). With such numbers we are beginning to diminish the role of chance and we become more certain that results are valid in statistical respect, but we must still be aware of possible bias. More certainty is, of course, a great advantage, but the disadvantage is that we might focus too much on these three medicines. In this newsletter we show results and some comments about these results. We will explain about availability bias and confirmation bias and our continuous attention for improving quality of cases.

Update of the mini-repertory

Our first mini-repertory for COVID-19 represented data of 97 cases. Remember that this repertory has a considerably different method of representing the importance of the symptom for specific medicines. The old repertory was based on absolute numbers and each of the three medicines would be represented in bold type in the rubric 'prostration/exhausted'. This repertory compares prevalence and then we see that 'prostration/exhausted' is a stronger indication for *Gels* than for *Bry.* This system provides sharper distinction between medicines.

Table 1: mini-repertory for three medicines concerning COVID-19. LR>1 means that the symptom indicates the medicine.

	total	ars	**LRars**	bry	**LRbry**	gels	**LRgels**
n=	132	18		36		22	
prostration/exhausted	**79**	11	**1.02**	16	**0.68**	18	**1.48**
dry cough	**64**	7	**0.78**	22	**1.40**	9	**0.82**
dyspnea	**46**	4	**0.60**	15	**1.29**	4	**0.48**
slow onset	**41**	5	**0.88**	14	**1.38**	7	**1.03**
headache	**38**	5	**0.96**	13	**1.39**	7	**1.13**
fever	**34**	3	**0.61**	10	**1.11**	8	**1.54**
diarrhoea	**30**	5	**1.27**	9	**1.14**	6	**1.25**
throat pain	**26**	3	**0.83**	9	**1.41**	6	**1.50**
chill	**23**	3	**0.95**	6	**0.94**	9	**3.21**
loss of taste and/or smell	**19**	3	**1.19**	4	**0.71**		
anxiety	**18**	7	**4.03**	3	**0.53**	3	**1.00**
dry mouth	**16**	4	**2.11**	8	**2.67**	1	**0.33**
thirstless	**14**	1	**0.49**	3	**0.73**	5	**2.78**
thirst	**12**	2	**1.27**	7	**3.73**	2	**1.00**
chest pain < cough	**11**	1	**0.63**	6	**3.20**	3	**1.88**
cough < deep respiration	**9**	2	**1.81**	6	**5.33**		

A sharper distinction between medicines, however, requires more statistical certainty and therefore larger numbers. Let us compare the results of the four most occurring symptoms with our previous mini-repertory, based on 97 cases.

Table 2: part of the first version of the mini-repertory for COVID-19, based on 97 cases.

	total	LRars	LRbry	gels
n=	97	15	25	11
prostration/exhausted	**61**	0.95	0.78	1.53
dry cough	**47**	0.80	1.63	0.73
dyspnea	**34**	0.53	1.57	0.24
slow onset	**27**	0.95	2.30	0.30

In Table 1 we see the same tendencies as in our old data in Table 2: 'prostration/exhausted' indicates *Gels*, 'dry cough' *Bry*, 'dyspnea' *Bry* and 'slow onset' also *Bry*, but LRs are different. Part of these differences is caused by statistical uncertainty, part – e.g. the LRs of 'slow onset' – by bias, see below.

We can show how statistical uncertainty works by the symptom 'prostration/exhaustion' for *Gels*. In the first set of 97 cases LR of 'prostration/exhaustion' for *Gels* was 1.53 and the 95% confidence interval (95%CI) was 1.187 - 1.980. in the second set of 132 cases we saw LR = 1.48, 95%CI 1.139 - 1.911. The 95%CI in the larger dataset is slightly narrower and the LRs are nearly the same.

For the symptom 'slow onset' we see that LRs are different. In the first set for *Bry* LR = 2.30 (95%CI 1.255 - 4.230) and for *Gels* LR = 0.30 (95%CI 0.045 - 2.003). In the second set we find for *Bry* LR = 1.38 (95%CI 0.822 - 2.325) and for *Gels* LR = 1.03 (95%CI 0.525 - 2.017). The LR values are quite different here. When we compare both datasets we see that the 21st April we had 11 *Gels* cases and only one of them had slow onset of complaints. In the dataset of 2nd May we have 22 *Gels* cases and seven of them had slow onset of complaints. The second set contained 11 new *Gels* cases and six of them had slow onset. How did that happen?

Availability bias

Availability bias is the human tendency to think that examples of things that come readily to mind are more representative than is actually the case. In a former newsletter we asked our observers to check for 'slow or fast onset of complaints'. This resulted in more awareness of the symptom 'slow onset'.

Publishing this repertory with only three medicines has the disadvantage of availability bias; cases related to these medicines are more easily recognised. This is exactly what we want to achieve, but we must not ignore other possible medicines. In our database there are cases responding well to other medicines and we need more cases that respond well to those medicines. Figure 1 shows the medicines that were used more than once. With more cases of those medicines we can expand our mini-repertory.

camph	11
phos	7
lob-p	5
sulph	4
con	3
kali-bi	3
puls	2
carb-ac	2
eup-per	2
kali-m	2

Figure 1: medicines successfully used for COVID-19, with numbers

Confirmation bias

Confirmation bias is the tendency to search for, interpret, favour, and recall information in a way that confirms or strengthens one's prior personal beliefs. Sometimes it is hard to distinguish this from availability bias. In the first phase of our data collection for COVID-19 we had one group that prescribed *Camphora* if 'prostration/exhausting' was present, another prescribed *Gelsemium*. This could be interpreted as availability bias because of their training, but it has also to do with personal

belief that 'prostration/exhaustion' is strongly related to *Camphora* or *Gelsemium*, and then this symptom is detected in all or most cases. Restlessness has so far been seen only in *Arsenicum* cases, but could that be because it is not recognised in other cases?

Confirmation bias threatens the interpretation of **causality**, did the prescribed medicine really cause the cure? It is only human to believe it did, but in randomised trials where a medicine is compared with placebo the number of patients responding well to placebo is remarkable.

We must realise that this research is not about proving anything, not your skills, nor the effectiveness of the prescribed medicine! If the case is, in fact, not cured by the medicine it will provide misleading information to you and your colleagues.

The distinction between different kinds of bias is not so relevant in our case, but it is important to realise that more precision in our data renders better prescriptions.

In the next newsletter we will discuss new possibilities with this new repertory.

Resuming requisites for case descriptions

We resume the minimal necessary data for this project. We already had:

- Severity of COVID-19 illness: Mild – Moderate – Severe – critical
- Is COVID-19 confirmed?
- Medicine, with date of first intake
- Number of hours until onset of improvement and/or until absence of fever
- If possible at least 3-5 symptoms that were characteristic for the case
- Pneumonia on X-ray or CAT

Also check:

- Slow or fast onset of complaints
- Prostration/exhaustion; where is the weakness seated
- Fear/anxiety
- Restlessness
- Fever, chill, or chill alternating with fever
- Thirst
- Pain; where
- Cough dry or moist
- Dyspnea
- Throat pain
- Loss of taste and/or smell
- diarrhoea

The LMHI COVID-19 case collection team
Lex Rutten, Bernardo Merizalde, Robbert van Haselen, Raj Kumar Manchanda, Ashley Ross, Gustavo Cataldi, Altunay Agaoglu, Tiziana di Giampietro, Lefteris Tapakis, Theodore Lilas, Peter Gold, Frederik Schroyens, José Eizayaga