

16 May 2018

Director-General of the Organisation for the Prohibition of Chemical Weapons (OPCW),

His Excellency, Ahmet Üzümcü ,

Excellency,

Clearly the presence of international authorities such as the OPCW in investigations on significant events is crucial for the scientific communities of various countries to be able to rely on the reports and to be able to discuss them and provide consultation. We believe that all investigations should be in accordance with the methodology registered in the OPCW; therefore, the samples and initial reports presented by the US, the UK, and France are not according to the said standard and are unacceptable. Otherwise, in the future every country will form their own investigative team and report in whatever manner they wish. We believe all samples and evidence should be presented to international authorities or should be collected in their presence. Unfortunately, before international authorities had a chance to investigate, the Western media presented reports which became the basis for the US/Britain/France attacks on Syria. Since we have vast experience in treating patients suffering from different nerve agents including Sarin during the Iran-Iraq war, we have carefully investigated the existing evidence from independent sources in several meetings, in order to see whether it is possible to determine if a chemical attack has actually occurred or not, supposing the information given to be true.

Regarding a scientific reflection of the Douma incident, our country's scientists at the Academy of Medical Sciences of the Islamic Republic of Iran have scrutinized the many ambiguities connected to the declared Douma incident on April 7, 2018. A summary of the items discussed is being sent to you for your attention in advance of the final consideration given to the assessment of this incident by UN certified centres.

The first reports of the incident were made by two foreign funded Syrian opposition groups; the Syrian American Medical Society (SAMS) and the Syrian Civil Defense (White Helmets). In these two reports released on April 8, 2018, which were very similar to each other, a group of over 500 chemical victims in an area controlled by Jaysh al-Islam (Army of Islam) is documented as presenting clinical symptoms indicative of exposure to a chemical agent.¹⁻² In the reports, a female victim is recorded as convulsive and having *pinpoint pupils*. Apart from this, another 43 cases of people allegedly found dead in their homes showing cyanosis, excessive oral foaming, and corneal burns have been reported. These symptoms are more likely consistent with exposure to organophosphate compounds. Subsequently, many news agencies reported these symptoms

quoting the two reports,³⁻⁵ and others cited similar symptoms quoting unidentifiable sources including a local news agency as well as local paramedic and relief forces.⁶

A - Regarding the clinical symptoms

One of the signs mentioned in these reports which is also very important for the diagnosis of nerve gas poisoning are *pinpoint pupils* (extremely constricted pupils). The points below should be observed regarding this matter:

1 - In the Syrian cases mentioned, very little photographic evidence exists showing *pinpoint pupils* and the degree of pupil constriction is much less than expected in cases of nerve gas poisoning.

2 - One of the signs mentioned in the more than 500 cases are corneal burns, which means examinations were carried out on the eyes of the victims. How is it possible that in such a large group, only one instance of *pinpoint pupils*, and only in a suspected severe case of exposure, has been observed?

3 - Due to our extensive experience gained during the time of Iraq's chemical warfare, *pinpoint pupil* has no relation to the severity of poisoning and is normally apparent even in mild poisoning and will remain for one to two days after the exposure. Therefore, in the presumption of a nerve gas attack, there should be many mild cases showing eye symptoms, but no evidence has been reported in this regard. Four photographs showing cases of *pinpoint pupils* related to nerve gas used during Iraq's chemical attacks on Iran (1980-1988) are attached for comparison to those from the suspected Douma incident. In the alleged chemical attack on Douma, there should be many patients like the Iranian victims of nerve gases with clear symptoms of *pinpoint pupils*, but such photographic evidence in the case of Douma patients do not exist. The only photographic evidence released has been of a single alleged case, and these do not show any definitive sign of *pinpoint pupils*. Also attached is a link to a short video of the light reflex of a nerve gas victim (March 17, 1984 - the first ever nerve gas attack in history*) who was moved from the war zone to an infirmary in Ahvaz, Iran. The patient is in relatively good general condition a day after poisoning and standing beside a healthy nurse.

We suggest that the videos and pictures that were used by the US, UK, and France to pass judgement, be made available to the public and handed over to the OPCW for precise diagnosis.

B- Regarding the biological samples

The U.S. State Department said on April 8, 2018 there were reports of mass casualties from an alleged chemical weapons attack in Douma. It added, "These reports, if confirmed, are horrifying and demand an immediate response by the international community,".⁷ Following this, The U.S. President began his threatening tweets.⁸ On April 10, the White House spokesperson was asked during a press briefing that "the British government said they're still looking for confirmation that Assad used chemical weapons last weekend. Is the President still looking for confirmation of that?" Her reply was: "I can't get into specific classified information."⁹ The fact that pictures of

victims had already been published in the media, well before the conclusion of any UN report regarding the incident would appear to suggest that these cannot be the classified information referred to in the response of the White House spokesperson. What then was the information that was waiting for confirmation and is still classified? The only information that would clear all ambiguities can be nothing less than the biological samples that only the U.S. appears to possess, but refrains from making public.

On April 12th the United States Secretary of Defense said: “We are not engaged on the ground there, so I cannot tell you that we have evidence, though we certainly had a lot of media and social media indicators that either chlorine or Sarin were used,” he said. “I believe there was a chemical attack. We’re looking for the actual evidence.”¹⁰ The US Secretary of Defense does not provide actual evidence, yet only hours later the American authorities refer to convincing evidence and say: “The U.S. now has blood and urine samples from last Saturday's deadly attack in Syria that have tested positive for chemical weapons . . . suggested the presence of both chlorine gas and an unnamed nerve agent.”¹¹ Then on April 13, CNN claimed, “the substance used in the attack was a mixture of Chlorine, Sarin and possibly other chemicals”¹², and on the same day the U.S. ambassador to the UN told reporters with confidence that a chemical weapons attack happened and that the U.S., France and UK have all confirmed it.¹³ Finally, during the early hours of the morning on the following day, the missile attack of those three countries against Syria was carried out based on this “evidence”, the most important of which are the biological samples. Despite their claimed evidence, the Americans don’t even know exactly what kind of gas has been used in Syria, even after their missile attacks. (They don’t even refer to biological samples.) Reading the responses of the US Secretary of Defense is a curious and painful experience.¹⁴

If we were to accept the authenticity of the sampling claimed by the U.S., there are a few obscurities that must be explained:

1 - How many samples were there and how many were positive? Were there control samples? Were these samples analyzed in only one laboratory in the United States or analyzed in France, the UK and other laboratories as well, and were the results compared? Were they internationally recognized laboratories? How were the samples obtained and what was the chain of custody?***

2 - Did the samples include those from living patients as well as those who allegedly lost their lives?

3 - Have there been any cases in which both Chlorine and nerve gas was observed in the same single sample?

4 - Was the level of plasma and red blood cells Cholinesterase in the blood sample measured, and was there a drop in the level of Cholinesterase?***

5 - Has chlorine poisoning been confirmed from biological samples? What was the method used? Until now there has not been any known scientific source that supports the claim that this can be determined by biological fluid sampling.

I suggest that these samples, which have formed the basis of the justification for the U.S., France and the UK to carry out a military attack on Syria, immediately be handed over to the OPCW and made public to obtain a definitive understanding about the test results.

Yours sincerely,

Seyed Alireza Marandi, M.D.
President
Academy of Medical Sciences
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Resources:

- 1- A Statement about the Chemical Attack on Eastern Ghouta. Syria Civil Defense, 8 April 2018.
<http://syrivicivildefense.org/press-release/statement-about-chemical-attack-eastern-ghouta>
 - 2- SAMS, Syria Civil Defense Condemn Chemical Attack on Douma. Syrian American Medical Society Foundation, 8 April 2018.
https://www.sams-usa.net/press_release/sams-syria-civil-defense-condemn-chemical-attack-douma
 - 3- Dozens Reported Killed in Suspected Syria Chemical Attack. NBC News, 8 April 2018.
<https://www.nbcnews.com/news/world/state-dept-monitoring-reports-new-chemical-attack-syria-n863691>
 - 4- Syrian Government Accused of Using Nerve Agents as Death Toll from Douma chemical Weapons Attack Rises. The Independent, 8 April 2018.
<http://www.independent.co.uk/news/world/middle-east/syria-chemical-weapons-attack-latest-sarin-douma-eastern-ghouta-nerve-agent-chlorine-russia-us-uk-a8294741.html>
 - 5- Dozens killed in apparent chemical weapons attack on civilians in Syria, rescue workers say. Washington Post, 8 April 2018.
https://www.washingtonpost.com/world/middle-east/dozens-killed-in-apparent-chemical-weapons-attack-on-civilians-in-eastern-ghouta--rescue-workers/2018/04/08/231bba18-3ac0-11e8-af3c-2123715f78df_story.html
 - 6- Dozens Killed in Suspected Chemical Attack on Syrian Rebel Enclave. The Guardian, 8 April 2018.
<http://www.theguardian.com/world/2018/apr/08/syrian-government-accused-of-chemical-attacks-on-civilians-in-eastern-ghouta>
 - 7- U.S. Says Reports of Chemical Attack in Syria 'horrifying' if confirmed, calls for response. Reuters, 8 April 2018.
<https://www.reuters.com/article/us-mideast-crisis-syria-attack-usa/u-s-says-reports-of-chemical-attack-in-syria-horrifying-if-confirmed-calls-for-response-idUSKBN1HF02N>
 - 8- Syrian Government Accused of Using Nerve Agents as Death Toll from Douma chemical Weapons Attack Rises. The Independent, 8 April 2018.
<http://www.independent.co.uk/news/world/middle-east/syria-chemical-weapons-attack-latest-sarin-douma-eastern-ghouta-nerve-agent-chlorine-russia-us-uk-a8294741.html>
 - 9- Press Briefing by Press Secretary Sarah Sanders. The White House, 10 April 2018.
<https://www.whitehouse.gov/briefings-statements/press-briefing-press-secretary-sarah-sanders-041018>
 - 10- U.S. "Looking for the Actual Evidence" of Syria Chemical Attack, Mattis Says. CBS News, 12 April 2018.
<https://www.cbsnews.com/news/u-s-looking-for-the-actual-evidence-of-syria-chemical-attack-mattis-says>
 - 11- U.S. Officials: Blood Samples Show Nerve Agent in Syria Gas Attack. NBC News, 12 April 2018.
<https://www.nbcnews.com/news/mideast/u-s-has-blood-samples-show-nerve-agent-syria-gas-n865431>
 - 12- Official: Biological Samples from Syria Attack Site Test Positive for Chlorine and Nerve Agent. CNN, 13 April 2018.
<https://www.cnn.com/2018/04/13/politics/syria-chemical-attack/index.html>
 - 13- Haley Slams Russia over Syria Chemical Attack. CNN, 13 April 2018.
<https://www.cnn.com/2018/04/13/politics/haley-russia-un-syria-meeting/index.html>
 - 14- "Briefing by Secretary Mattis on U.S. Strikes in Syria." U.S. Department of Defense, 13 April 2018.
<https://www.defense.gov/News/Transcripts/Transcript-View/Article/1493658/briefing-by-secretary-mattis-on-us-strikes-in-syria>
- Q: Mr. Secretary, it was just a couple of days ago that you said you were still assessing the intelligence on the chemicals weapons attacks, suspected attack. So at this point do you know what the chemical was used in that attack? Was it sarin? Was it chlorine?
- And also, what is your evidence it was actually delivered by the Syrian regime?
- SEC. MATTIS: Say the last part again, Tom?
- Q: What's your evidence it was delivered by the Syrian regime? Are you quite clear it was?
- SEC. MATTIS: I am confident the Syrian regime conducted a chemical attack on innocent people in this last week, yes. Absolutely confident of it. And we have the intelligence level of confidence that we needed to conduct the attack.
- Q: And as far as the actual chemical used, do you know what it was? Was it nerve agent? Was there chlorine? Do you have a sense of what it was?
- SEC. MATTIS: We are very much aware of one of the agents. There may have been more than one agent used. We are not clear on that yet. We know at least one chemical agent was used.

* Nerve gases were produced by the Germans during WWII at an industrial scale, but were never used. Therefore, the first use of at least three types of nerve gases (including Tabun, Sarin and Cyclosarin) was by the Iraqi regime against Iran and Iranian physicians diagnosed and treated large numbers of these patients for the first time in history.

**Human errors and false positive results in laboratory diagnosis can be very misleading and therefore the result of samples should be confirmed by several reference laboratories. In 1984, when a number of Iranian chemical victims were admitted to a western country's university hospital, several types of mycotoxins were identified in the blood and urine samples. The Western media, which had previously accused Russia for using mycotoxins in some incidents, immediately circulated the news that these mycotoxins have Russian origin. However, later it became clear that this diagnosis was a laboratory error and was not confirmed by the UN team of experts in samples that were directly taken from the Iraqi chemical bombs dropped on Iranian war zones, nor were the mycotoxins found in the samples taken back then by the UNSCOM team from Iraqi chemical storages and bombs. Even after the US invasion of Iraq, there was no evidence of mycotoxin in Iraq's chemical arsenal.

***Cholinesterase (ChE) is an enzyme whose activity is significantly decreased by Sarin gas, and this decrease is much more intense in more severe cases. In fact, the main cause of Sarin poisoning at the cellular level is the inhibition of ChE in neural synapses, and in severe cases, the lack of reduction in plasma ChE level ruled out the diagnosis of nerve gas poisoning. During Iraq's chemical attacks against Iran we detected chemical agents through special electronic detector kits and clinical pictures of victims. For further confirmation, we evaluated a number of hospitalized patients' plasma ChE activity at the field hospital. We witnessed a sharp decrease in ChE activity at the beginning and the restoration of enzyme activity to its normal level after the administration of ChE reactivator (obidoxime). Experts everywhere are familiar with the importance of this test.

Annex



Pinpoint pupils in four patients of different chemical attacks by Iraqi forces against Iran (1980-1988). Notice that around one day after treatment and in complete consciousness, the pinpoint pupils are still visible.



The light reflex of a victim of the first nerve gas attacks on Iran (1984)

Video link:

<https://www.aparat.com/v/4r8I9>